

ILLINOIS
MALLEABLE
IRON CO

M

CATALOGUE
J. 1925

CHICAGO·ILLINOIS

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Established in 1880 by Henry E. Bullock

Incorporated 1884

ILLINOIS MALLEABLE IRON CO.

MANUFACTURERS OF

MALLEABLE *and* CAST IRON PIPE FITTINGS
SCREWED AND FLANGED

IRON BODY GATE VALVES
BRASS VALVES
HOUSE HEATING BOILERS
TANK HEATERS, ETC.

CATALOGUE
J-1925

General Offices: 1801-1825 DIVERSEY PARKWAY

Works:

Diversey Parkway and C. & N. W. R. R., Ashland Ave. and Wellington St.

Branch Stores:

4545-4547 South State Street

1901 West Van Buren Street

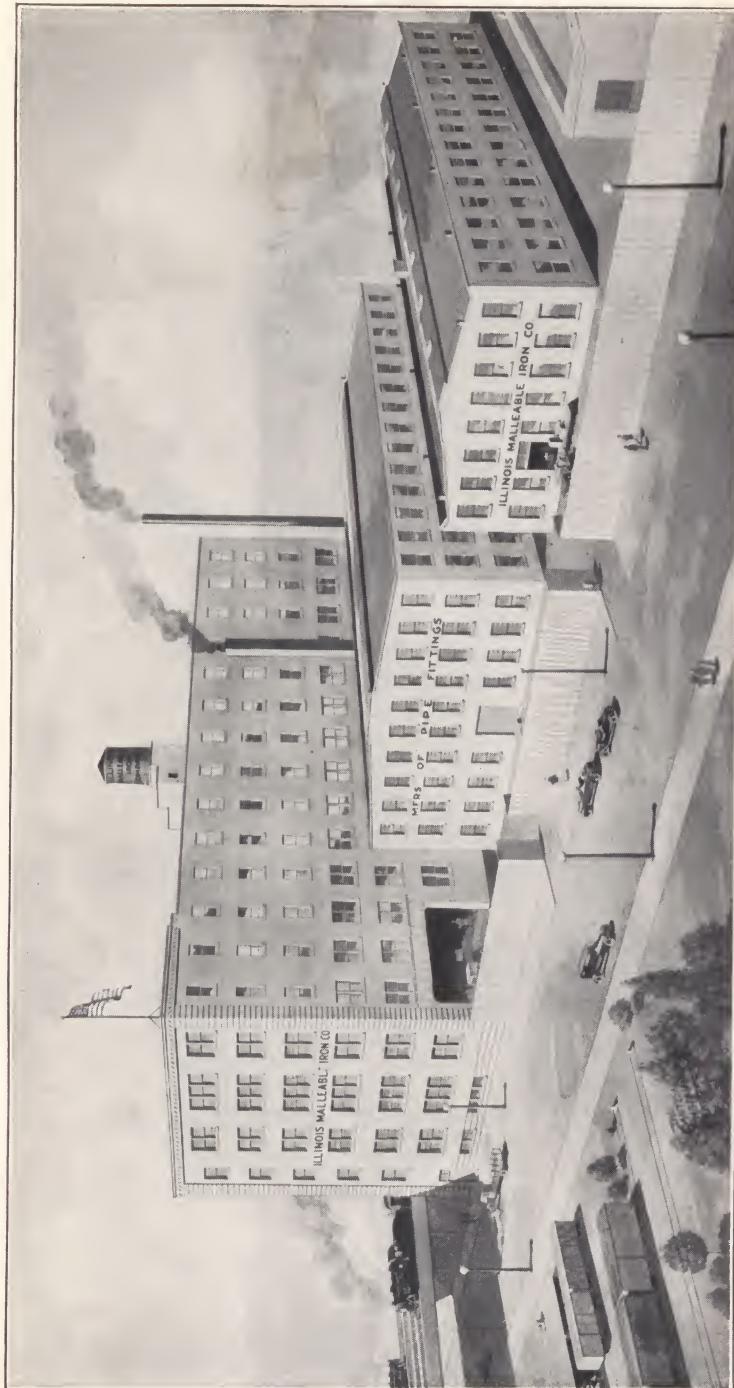
2705-2707 Lincoln Avenue

CHICAGO, ILLINOIS, U. S. A.

Canadian Plant:

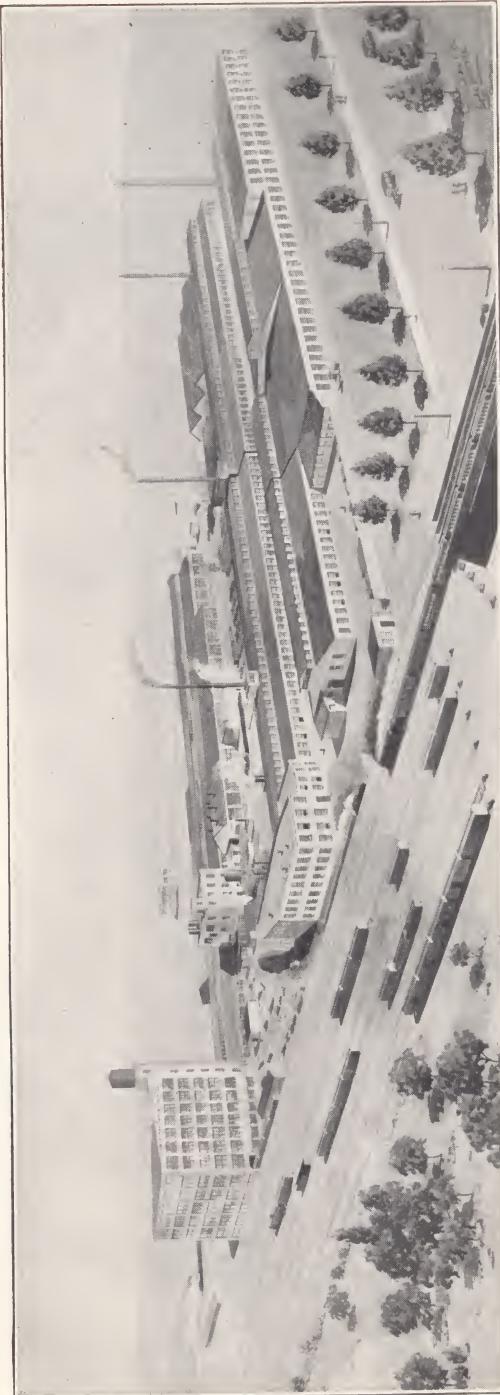
INTERNATIONAL MALLEABLE IRON CO., LIMITED
GUELPH, ONT., CANADA

ILLINOIS MALLEABLE IRON COMPANY, CHICAGO, ILL.
GENERAL OFFICES, 1801 DIVERSEY PARKWAY



PLANT 1
Diversey Parkway and C. & N. W. Tracks. Tapping and Machine Shop Division, Pipe Fitting Department. The center building, formerly of two stories, represents the original plant.

ILLINOIS MALLEABLE IRON COMPANY, CHICAGO, ILL.
GENERAL OFFICES, 1801 DIVERSEY PARKWAY



PLANT 2

Diversey Parkway, Paulina Street, C. & N. W. R. R.
Grey Iron Foundry, Cast Iron Boiler Department, Malleable Iron Foundries.

ILLINOIS MALLEABLE IRON COMPANY, CHICAGO, ILL.
GENERAL OFFICES, 1801 DIVERSEY PARKWAY



PLANT 3

Paulina and Wellington Streets, Ashland Avenue and Wolfram Street.
Malleable Foundries, Power Plant and Galvanizing Shop.

INTERNATIONAL MALLEABLE IRON CO., LIMITED



GUELPH, ONTARIO

Trade Mark Registered



U. S. Patent Office 1912

CASTINGS

We solicit orders for
Certified Malleable Iron Castings
Gray Iron Castings
Brass or Bronze Castings
From Customers' Patterns



*In connection with our foundry work we
are prepared to supply Galvanized
Malleable or Gray Iron
Castings*

CONDITIONS OF SALE

1. All prices are subject to change without notice; quotations are made for immediate acceptance.
2. All contracts subject to strikes, accidents or causes beyond our control.
3. Our liability for shortages, breakages or damages of any nature ceases upon delivery to, and clear receipt obtained from, the transportation company.
4. Claims for corrections or deductions for erroneous charges must be made within ten days after receipt of goods. In making claims for shortage of goods, or overcharge in freight, the *original* paid freight bill must accompany each claim, which, in case of shortage, should bear notation thereon to that effect. In making claims always refer to date and number of invoice.
5. We exercise reasonable care to furnish nothing but perfect goods, but it must be understood that we assume no liability for damages of any character.
6. Should any article be found defective in either material or workmanship, we will, upon return to us of such defective article, either give credit at price charged, or exchange same for a perfect article of like description, but no further allowance will be made, however, unless arrangements have been made in advance of return.
7. Orders for goods not regularly carried in stock, or to be made to customers' specifications, are not subject to cancellation at any time.

ILLINOIS MALLEABLE IRON COMPANY.

INDEX

A

Acorns, Malleable Iron Railing	19
Angle Valves, Brass, Standard, Imico	102

B

Back Water Traps, Palmer	59
Water Valves, Palmer	59
Bars, Extension, Pipe Hanger	36
Beam Clamps	35
Hooks	36
Bends, Return, Cast Iron, Screwed, Flat Band	30
Return, Malleable Iron, Screwed, Standard	11
Y, Cast Iron, Screwed, Extra Heavy	43
Y, Malleable Iron, Screwed, Standard	9
Boiler Couplings	18
Elbows	18
Flanges, Cast Iron, Screwed, Standard	33
Union Tees	18
Boilers, Heating, Imico	103-114
Heating, Imico Illinois	115-120
Hot Water, Aetna	123
Bolts, Machine	126
Branch Tees, Cast Iron	34
Branches, Y, Cast Iron, Drainage	50-55
Y, Cast Iron, Flanged, Extra Heavy	83, 85
Y, Cast Iron, Flanged, Standard	66, 68
Y, Cast Iron, Screwed, Flat Band	29
Burners, Garbage, Imico	121
Bushings, Cast Iron, Screwed, Flat Band	31
Malleable Iron, Screwed, Standard	12
Radiator	31

C

Caps, Cast Iron, Screwed, Flat Band	30
Driving	22
Malleable Iron, Screwed, Standard	10
Cast Iron Drainage Fittings	46-57
Fittings, Flanged, Extra Heavy	78-88
Fittings, Flanged, Extra Heavy, Galvanized	92
Fittings, Flanged, Extra Heavy, Sizes of	94, 95
Fittings, Flanged, Standard	61-71, 76, 77

	Page
Cast Iron Fittings, Flanged, Standard, Galvanized	75
Fittings, Flanged, Standard, Sizes of	76, 77
Fittings, Screwed, Extra Heavy	43
Fittings, Screwed, Flat Band	28-31
Fittings, Screwed, Flat Band, Sizes of	23-27
Fittings, Screwed, Long Turn	38, 39
Fittings, Screwed, Standard, Dimensions of	127
Traps	58
Ceiling Plates	37
Ceiling and Floor Plates	37
Chandelier Hooks	12
Loops	12
Checks and Guides, Street Washer	13
Clamps, Beam	35
Hydrant	13
Clevises, Hose	21
Closet Elbows	48
Flanges	57
Companion Flanges, Cast Iron, Extra Heavy	89, 90, 93
Flanges, Cast Iron, Standard	72, 73
Flanges, Malleable Iron, Extra Heavy	89
Flanges, Malleable Iron, Standard	72
Connections, Hub, Cast Iron, Drainage	57
Roof, Cast Iron, Drainage	57
Tucker, Cast Iron, Drainage	57
Couplings, Boiler	18
Faced	42
Malleable Iron, Screwed, Standard	10
Rod, Pump	21
Rod, Reducer	21
Wrought Iron	42
Crosses, Cast Iron, Drainage	49
Cast Iron, Flanged, Extra Heavy	84
Cast Iron, Flanged, Standard	67
Cast Iron, Screwed, Extra Heavy	43
Cast Iron, Screwed, Flat Band	29
Cast Iron, Screwed, Long Turn	38, 39
Malleable Iron, Hydraulic, Extra Heavy	45
Malleable Iron, Railing	19, 20
Malleable Iron, Screwed, Extra Heavy	44
Malleable Iron, Screwed, Standard	9
Crossovers, Malleable Iron, Screwed, Standard	10
Cushions, Loafer	13

ILLINOIS MALLEABLE IRON CO.

Dra
to
Hyd

D	Page	Page	
Drainage Fittings, Cast Iron	46-57	Fittings , Malleable Iron, Screwed, Standard, Dimensions of	127
Fittings, Malleable Iron	46	Railing, Malleable Iron	19, 20
Drilling Flanged Valves and Fittings, Templates for	74, 91	Fittings and Valves, Flanged, Drilling, Templates for	74, 91
Drive Ferrules, Iron	58	Flange Unions	32
Shoes	22	Unions, Malleable Iron	16
Driving Caps	22	Flanges , Blind, Cast Iron, Extra Heavy	89
Drum Traps, Cast Iron	58	Blind, Cast Iron, Standard	72
E		Boiler, Cast Iron, Screwed, Standard	33
Eccentric Flanges, Cast Iron, Extra Heavy	89	Closet	57
Flanges, Cast Iron, Standard	72	Common, Cast Iron, Screwed, Standard	33
Elbows , Boiler	18	Companion, Cast Iron, Extra Heavy	89, 90, 93
Cast Iron, Drainage	47, 48	Companion, Cast Iron, Standard	72, 73
Cast Iron, Flanged, Extra Heavy	78-81	Companion, Malleable Iron, Extra Heavy	89
Cast Iron, Flanged, Standard	61-64	Companion, Malleable Iron, Standard	72
Cast Iron, Screwed, Extra Heavy	43	Eccentric Cast Iron, Extra Heavy	89
Cast Iron, Screwed, Flat Band	28	Eccentric, Cast Iron, Standard	72
Cast Iron, Screwed, Long Turn	38, 39	Floor, Cast Iron, Screwed, Standard	33
Malleable Iron, Hydraulic, Extra Heavy	45	Malleable Iron, Railing	19, 20
Malleable Iron, Railing	19, 20	Floor Flanges, Cast Iron, Screwed, Standard	33
Malleable Iron, Screwed, Extra Heavy	44	Plates	37
Malleable Iron, Screwed, Standard	7, 8	Floor and Ceiling Plates	37
Union	17	G	
Extension Bars, Pipe Hanger	36	Garbage Burners, Imico	121
Pieces, Malleable Iron, Screwed, Standard	12	Gas Pipe	128, 129
F		Gaskets , Corrugated Copper	96, 97
Ferrules , Drive, Iron	58	Full Face	96, 97
Trap Screw	58	Ring	96, 97
Fittings , Cast Iron, Flanged, Extra Heavy	78-88	Gate Valves, All Iron, Standard, Imico	101
Cast Iron, Flanged, Extra Heavy, Galvanized	92	Valves, Brass, Standard, Imico	102
Cast Iron, Flanged, Extra Heavy, Sizes of	94, 95	Valves, Iron Body, Standard, Imico	98-101
Cast Iron, Flanged, Standard	61-71, 76, 77	Globe Valves, Brass, Standard, Imico	102
Cast Iron, Flanged, Standard, Galvanized	75	Guides and Checks, Street Washer	13
Cast Iron, Flanged, Standard, Sizes of	76, 77	H	
Cast Iron, Screwed, Standard, Dimensions of	127	Handles , Hydrant	13
Cast Iron, Screwed, Extra Heavy	43	Hangers , Pipe	35, 36
Cast Iron, Screwed, Flat Band	28-31	Heads , Sprinkler	37
Cast Iron, Screwed, Flat Band, Sizes of	23-27	Heaters , Water, Coal, Illinois	122
Cast Iron, Screwed, Long Turn	38, 39	Water, Coal, Imico	121
Drainage, Cast Iron	46-57	Water, Laundry, Imico	123
Drainage, Malleable Iron	46	Heating Boilers, Imico Illinois	115-120
Hydraulic, Malleable Iron, Extra Heavy	45	Boilers, Imico	103-114
Malleable Iron, Classification of	1-6	Hook Plates	36
Malleable Iron, Screwed, Extra Heavy	44	Hooks , Beam	36
Malleable Iron, Screwed, Standard	7-12	Chandelier	12

CHICAGO, ILLINOIS

	Page
Hydrant Rod Rests.....	13
Sockets.....	13
Hydrants , Compression.....	124, 125
Self-closing.....	124, 125
Hydraulic Fittings, Malleable Iron, Extra Heavy.....	45
I	
Increasers , Cast Iron, Drainage.....	55
Iron Drive Ferrules.....	58
K	
Keys , Street Washer.....	13
L	
Laterals , Cast Iron, Flanged, Extra Heavy.....	85
Cast Iron, Flanged, Standard.....	68
Laundry Water Heaters, Imico.....	123
Loafer Cushions.....	13
Locknut Nipples.....	42
Locknuts , Cast Iron, Screwed, Flat Band.....	30
Faced.....	42
Malleable Iron, Screwed, Standard.....	12
Long Screws.....	42
Loops , Chandelier.....	12
M	
Machine Bolts.....	126
Malleable Iron Drainage Fittings.....	46
Fittings, Classification of.....	1-6
Fittings, Hydraulic, Extra Heavy.....	45
Fittings, Screwed, Extra Heavy.....	44
Fittings, Screwed, Standard.....	7-12
Fittings, Screwed, Standard, Dimen- sions of.....	127
Pipe Saddles.....	32
Railing Fittings.....	19, 20
Unions.....	16
Manifolds , Cast Iron.....	34
N	
Nipples , Locknut.....	42
Malleable Iron, Screwed, Standard.....	12
Pipe, Wrought.....	40, 41
Solder, Brass.....	57
Tank.....	42
Nokorous Unions.....	14
O	
Offsets , Cast Iron, Drainage.....	55
Malleable Iron, Screwed, Standard.....	10
P	
Palmer Back Water Traps.....	59
Back Water Valves.....	59
Pipe , Gas.....	128, 129
Steam.....	128, 129
Pipe , Water.....	128, 129
Wrought.....	128, 129
Pipe Hangers.....	35, 36
Nipples, Wrought.....	40, 41
Saddles, Malleable Iron.....	32
Strainers.....	22
Straps, Tinned.....	36
Plates , Ceiling.....	37
Floor.....	37
Floor and Ceiling.....	37
Hook.....	36
Wall, Malleable Iron, Screwed, Stand- ard.....	12
Plug Rubbers, Testing, Soil Pipe.....	59
Plugs , Cast Iron, Screwed, Flat Band Radiator.....	31
Testing, Soil Pipe.....	59
Pump Rod Couplings.....	21
R	
Radiator Bushings.....	31
Plugs.....	31
Railing Fittings, Malleable Iron.....	19, 20
Railroad Unions.....	15
Reducer Rod Couplings.....	21
Reducers , Cast Iron, Screwed, Flat Band.....	31
Malleable Iron, Screwed, Standard.....	10
Taper, Cast Iron, Flanged, Extra Heavy.....	86
Taper, Cast Iron, Flanged, Standard.....	69
Reducing Fittings, Hydraulic, Mal- leable Iron, Extra Heavy.....	45
Fittings, Malleable Iron, Extra Heavy.....	44
Rests , Rod, Hydrant.....	13
Return Bends, Cast Iron, Screwed, Flat Band.....	30
Bends, Malleable Iron, Screwed, Standard.....	11
Ring Gaskets.....	96, 97
Rod Couplings, Pump.....	21
Couplings, Reducer.....	21
Rests, Hydrant.....	13
Roof Connections, Cast Iron, Drain- age.....	57
Rubbers , Plug, Testing, Soil Pipe.....	59
S	
Saddles , Pipe, Malleable Iron.....	32
Screws , Long.....	42
Shoes , Drive.....	22
Sockets , Hydrant.....	13
Soil Pipe Testing Plug Rubbers.....	59
Pipe Testing Plugs.....	59
Solder Nipples, Brass.....	57
Sprinkler Heads.....	37
Stair Landing Crosses, Malleable Iron.....	20
Landing Tees, Malleable Iron.....	20
Steam Pipe.....	128, 129
Strainers , Hose.....	22

Hyd
to
Str

ILLINOIS MALLEABLE IRON CO.

	Page	
Str	Strainers, Pipe.....	22
to	Straps, Pipe, Tinned.....	36
Y Be	Street Washer Guides and Checks.....	13
	Washer Keys.....	13
	Washers.....	124, 125
	T	
	Tank Nipples.....	42
	Taper Reducers, Cast Iron, Flanged, Extra Heavy.....	86
	Reducers, Cast Iron, Flanged, Standard.....	69
	Tees, Branch, Cast Iron.....	34
	Cast Iron, Drainage.....	49
	Cast Iron, Flanged, Extra Heavy.....	82, 83, 87, 88
	Cast Iron, Flanged, Standard.....	65, 66, 70, 71
	Cast Iron, Screwed, Extra Heavy.....	43
	Cast Iron, Screwed, Flat Band.....	29
	Cast Iron, Screwed, Long Turn.....	38, 39
	Malleable Iron, Hydraulic, Extra Heavy.....	45
	Malleable Iron, Railing.....	19, 20
	Malleable Iron, Screwed, Extra Heavy.....	44
	Malleable Iron, Screwed, Standard.....	8, 9
	Malleable Iron, Wash Tray.....	10
	Union.....	17
	Union, Boiler.....	18
	Templates for Drilling Flanged Valves and Fittings.....	74, 91
	Testing Plug Rubbers, Soil Pipe.....	59
	Plugs, Soil Pipe.....	59
	Trap Screw Ferrules.....	58
	Traps, Back Water, Palmer.....	59
	Cast Iron.....	58
	Cast Iron, Drainage.....	55, 56
	Drum, Cast Iron.....	58
	Tucker Connections, Cast Iron, Drainage.....	57
	U	
	Union Elbows.....	17
	Tees.....	17
	U	
	Union Tees, Boiler.....	18
	Unions, Flange.....	32
	Malleable Iron.....	16
	Nokorous.....	14
	Railroad.....	15
	V	
	Valves, Angle, Brass, Standard, Imico.....	102
	Back Water, Palmer.....	59
	Gate, All Iron, Standard, Imico.....	101
	Gate, Brass, Standard, Imico.....	102
	Gate, Iron Body, Standard, Imico.....	98-101
	Globe, Brass, Standard, Imico.....	102
	Valves and Fittings, Flanged, Drilling, Templates for.....	74, 91
	W	
	Wall Plates, Malleable Iron, Screwed, Standard.....	12
	Wash Tray Tees, Malleable Iron.....	10
	Washers, Street.....	124, 125
	Waste Nuts, Malleable Iron, Screwed, Standard.....	12
	Water Heaters, Coal, Illinois Heaters, Coal, Imico.....	122
	Heaters, Laundry, Imico.....	123
	Pipe.....	128, 129
	Wrought Pipe.....	128, 129
	Y	
	Y Bends, Cast Iron, Screwed, Extra Heavy.....	43
	Bends, Malleable Iron, Screwed, Standard.....	9
	Branches, Cast Iron, Drainage.....	50-55
	Branches, Cast Iron, Flanged, Extra Heavy.....	83, 85
	Branches, Cast Iron, Flanged, Standard.....	66, 68
	Branches, Cast Iron, Screwed, Flat Band.....	29

INDEX TO FIGURE NUMBERS

The illustrations in this catalogue are grouped by pages. All the illustrations on a given page are designated by the same number, being distinguished from each other by the addition of different letters.

To locate any figure, ignore the letter and find the figure number in the first column. The page number will be opposite.

Thus, to find Fig. 1283B, merely look up 1283, which will be seen on page 57.

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
18	87	1249.....	51	8480.....	31	8550.....	123	8669.....	36
24.....	61	1251.....	52	8481.....	30	8551.....	121	8670.....	13
25.....	65	1252.....	53	8485.....	47	8574.....	44	8675.....	37
26.....	70	1268.....	55	8486.....	48	8577.....	45	8681.....	74
27.....	71	1283.....	57	8487.....	54	8595.....	14	8685.....	91
28.....	67	2514	125	8488.....	56	8596.....	15	8702	96
29.....	68	3274	34	8502	21	8601	16	8738.....	99
31.....	73	3706	33	8510.....	22	8602.....	17	8740.....	101
36.....	78	5265	124	8518.....	104	8605.....	18	8743.....	102
37.....	82	6830	80	8520.....	105	8608.....	63	9929	88
38.....	84	6854.....	32	8523.....	106	8610.....	64	11403	1
39.....	85	6854.....	32	8525.....	107	8612.....	66	11405.....	3
45.....	40	6854.....	32	8530.....	111	8619.....	72	11419.....	7
92.....	69	6953	128	8531.....	113	8623.....	79	11420.....	8
296	86	8402	19	8534.....	110	8624.....	81	11421.....	9
722	38	8403.....	20	8536.....	112	8626.....	83	11422.....	10
723.....	39	8452.....	35	8540.....	116	8632.....	89	11423.....	11
725.....	62	8454.....	42	8543.....	117	8634.....	90	11424.....	12
1241	49	8461.....	43	8544.....	118	8636.....	93		
1247.....	50	8475.....	29	8545.....	119	8645.....	58		
				8548.....	122	8648.....	59	33550	126



STANDARD MALLEABLE IRON FITTINGS FOR STEAM WORKING PRESSURES UP TO 150 POUNDS



Fig. 11403A

PATTERNS

We make our fittings in both flat band and plain patterns. Our flat band fittings are made from new patterns, scientifically designed by recognized experts, constructed in conformity with the latest ideas and are uniform as to proportions. Our elbows, tees and crosses of the same size, having the same center to face dimensions, will commend the favorable notice of practical men.

THREADING AND REAMING

Our fittings are reamed or counterbored and are threaded strictly in accordance with Briggs standard gauge, $\frac{3}{4}$ -inch taper to the foot, and conform in this respect with the taper of the thread on the pipe. All fittings are tapped on modern machinery, securing absolutely true angles and perfect alignment.

WORKING PRESSURE

Our malleable steam fittings are suitable for steam working pressures up to 150 pounds, although, if proper care is exercised in installing them, they will stand higher pressures, but as is well known, fittings of all kinds are subject to strains due to expansion or contraction, or the making up of joints, so we do not recommend our steam fittings for higher than the working pressure named.

STOCK SIZES

We show on pages 3, 4, 5 and 6 a large line of straight and reducing sizes and believe these are sufficient to cover the requirements of the trade. To avoid making fittings to order we recommend the use of bushings, but when it is absolutely necessary to have special fittings, we will be glad to quote price on receipt of specifications. This price in all cases will be found comparatively high.

GALVANIZED FITTINGS

Such sizes of malleable fittings as we list on pages 3, 4, 5 and 6 and mark with (*) are carried in stock galvanized; other sizes will be made to order only at a special price, according to quantity wanted.

SPECIAL FITTINGS

We are prepared to make special fittings at any time and will quote prices on receipt of blue prints or samples, together with full information as to quantity wanted, etc.

MALLEABLE IRON FITTINGS

STANDARD CLASSIFICATION AND PRICE LIST

REVISED JUNE 1, 1917

	A	B	C
Class.....	$\frac{1}{8}$	$\frac{1}{4}$ to 1, Inclusive	$1\frac{1}{4}$ and Larger
Caps.....		All Sizes	
Chandelier Hooks.....		" "	
" Loops.....		$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$	1 and Larger
Couplings, R. H.		$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$	1 "
" R. and L.....	$\left\{ \begin{array}{l} \frac{1}{4} \times \frac{1}{8} \\ \frac{3}{8} \times \frac{1}{8} \\ \frac{1}{2} \times \frac{1}{8} \end{array} \right\}$	$\frac{3}{8} \times \frac{1}{4}$ to $1 \times \frac{3}{4}$	* $1\frac{1}{4}$ and Larger
" Reducing.....			
Crosses.....		$\frac{1}{4}$ to 1, Inclusive	$1\frac{1}{4}$ and Larger
" Reducing.....		1 and Smaller	* $1\frac{1}{4}$ "
Elbows.....		$\left\{ \begin{array}{l} \frac{1}{4} \times \frac{1}{8} \\ \frac{1}{4} \times \frac{1}{8} \\ \frac{3}{8} \times \frac{1}{8} \\ \frac{1}{2} \times \frac{1}{8} \end{array} \right\}$	* $\frac{3}{4}$ and Larger
Elbows, 45°.....		$\frac{1}{4}$ to 2, Inclusive	$2\frac{1}{2}$ "
" 60°.....		$1\frac{1}{4}$ to 2	
" Drop.....		All Sizes	
" R. and L.....	$\frac{1}{4}$, $\frac{3}{8}$	$\frac{1}{2}$, $\frac{3}{4}$, 1	* $1\frac{1}{4}$ and Larger
" Side Outlet.....		All Sizes	
" Street.....	$\frac{1}{8}$	$\left\{ \begin{array}{l} \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{3}{4} \\ \frac{3}{4} \times \frac{1}{2} \\ 1 \times \frac{1}{2}, 1 \times \frac{3}{4} \end{array} \right\}$	1 and Larger
" " 45°.....	$\frac{3}{8}$	$\frac{1}{2}$ and Larger	
Extension Pieces.....		All Sizes	
Locknuts.....	$\frac{1}{8}$	$\frac{1}{4}$ to $1\frac{1}{4}$, Inclusive	$1\frac{1}{2}$ and Larger
Return Bends.....		1 and Smaller	$1\frac{1}{4}$ "
" " R and L.....	$\frac{3}{8}$ and $\frac{1}{2}$	$\frac{3}{4}$ and Larger	
Tees.....		$\left\{ \begin{array}{l} \frac{1}{8} \times \frac{1}{8} \\ \frac{1}{8} \times \frac{1}{4} \\ \frac{1}{4} \times \frac{1}{8} \\ \frac{3}{8} \times \frac{1}{8} \end{array} \right\}$	* $\frac{3}{4}$ and Larger
Tees, Drop.....			
" Four-way.....		$\frac{1}{2}$ Reducing	
" Service.....		All Sizes	
Wall Plates.....			
Waste Nuts.....			
" Y" Bends.....	$\frac{3}{8}$	$\frac{1}{2}$ and Larger	
" " 60°.....		All Sizes	
Price, Black.....	per pound	$.40$	$.20$
" Galvanized.....		$.50$	$.28$

*Fittings in Class C having one or more outlets smaller than $\frac{3}{4}$ inch will be charged as Class B.

Orders for malleable fittings aggregating not more than 25 pounds, assorted in Classes B and C, will be charged as Class B.

$\frac{1}{8}$ -inch street ells, caps and locknuts are sold by piece.

The run of a tee gives the size for the purpose of classification and the outlet being larger does not change it.

Right and left fittings, not classified above, take one class higher than right. For small quantities of right and left fittings we will charge time.

NOTE.—We make many fittings not shown above. If you need special fittings, specifications are invited.

STANDARD MALLEABLE IRON FITTINGS

REVISED CLASSIFICATION—JUNE 1, 1917

Banded for Steam



Fig. 11405A

Plain for Gas



Fig. 11405B

Some sizes of malleable iron fittings are made in two styles, banded for steam or water, and plain for gas. We will always ship banded pattern when made, unless otherwise ordered.

ELBOWS

	Size	Class
*Banded & Plain	1/8	A
*Plain	1/4 x 1/8	A
*Banded & Plain	1/4	B
*Banded	3/8 x 1/8	A
*Banded	3/8 x 1/4	B
*Banded & Plain	3/8	B
*Banded	1/2 x 1/8	A
*Banded	1/2 x 1/4	B
*Banded & Plain	1/2 x 3/8	B
*Banded & Plain	1/2	B
*Banded	3/4 x 3/8	B
*Banded & Plain	3/4 x 1/2	B
*Banded & Plain	3/4	C
*Banded	1 x 3/8	B
*Banded	1 x 1/2	B
*Banded & Plain	1 x 3/4	C
*Banded & Plain	1	C
*Banded	1 1/4 x 1/2	B
*Banded	1 1/4 x 3/4	C
*Banded	1 1/4 x 1	C
*Banded & Plain	1 1/4	C
*Banded	1 1/2 x 3/4	C
*Banded	1 1/2 x 1	C
*Banded & Plain	1 1/2 x 1 1/4	C
*Banded & Plain	1 1/2	C
Banded	2 x 3/4	C
*Banded	2 x 1	C
*Banded	2 x 1 1/4	C
*Banded	2 x 1 1/2	C
*Banded & Plain	2	C
*Banded	2 1/4 x 1 1/2	C
*Banded	2 1/4 x 2	C
*Banded	2 1/2	C
*Banded	3 x 2	C
*Banded	3 x 2 1/2	C
*Banded	3	C
*Banded	3 1/4 x 3	C
*Banded	3 1/2	C

ELBOWS

	Size	Class
*Banded	4 x 2 1/2	C
*Banded	4 x 3	C
*Banded	4 x 3 1/2	C
*Banded	4	C
*Banded	4 1/2	C
*Banded	5	C
*Banded	6	C

RIGHT AND LEFT ELBOWS

	Size	Class
*Banded	1/4 x 1/4	A
*Banded	3/8 x 3/8	A
*Banded	1/2 x 1/2	B
*Banded	3/4 x 3/4	B
*Banded	1 x 1	B
*Banded	1 1/4 x 1/4	C
*Banded	1 1/2 x 1 1/2	C
*Banded	2 x 2	C

STREET ELBOWS

	Size	Class
*Banded	1/8	A
*Banded	1/4	B
*Banded	3/8	B
*Banded	1/2	B
*Banded	3/4 x 1/2	B
*Banded	3/4	B
*Banded	1 x 3/4	B
*Banded	1	C
*Banded	1 1/4 x 3/4	C
*Banded	1 1/4 x 1	C
*Banded	1 1/4 x 1 1/4	C
*Banded	1 1/4 x 1 1/2	C
*Banded	1 1/2 x 1 1/2	C
*Banded	2 x 2	C

45° STREET ELBOWS

	Size	Class
*Banded	3/8	A
*Banded	1/2	B
*Banded	3/4	B
*Banded	1	B
*Banded	1 1/4	B
*Banded	1 1/2	B
*Banded	1 1/2	B
*Banded	2	B

ELBOWS WITH SIDE OUTLET

	Size	Class
*Plain	3/8 x 3/8 x 1/4	B
*Plain	3/8 x 3/8 x 3/8	B
*Plain	1/2 x 1/2 x 3/8	B
*Plain	1/2 x 1/2 x 1/2	B
*Plain	3/4 x 3/4 x 3/8	B
*Plain	3/4 x 3/4 x 1/2	B
*Plain	3/4 x 3/4 x 3/4	B
*Plain	1 x 1 x 1/2	B
*Plain	1 1/4 x 1 1/4 x 1 1/4	B
*Plain	1 1/2 x 1 1/2 x 1 1/2	B
*Plain	2 x 2 x 2	B

45° ELBOWS

	Size	Class
*Banded	1/8	A
*Banded	1/4	B
*Banded	3/8	B
*Banded	1/2	B
*Banded & Plain	1/2	B
*Banded & Plain	3/4	B
*Banded & Plain	1	B
*Banded & Plain	1 1/4	B
*Banded & Plain	1 1/2	B
*Banded & Plain	2	C
*Banded	2 1/2	C
*Banded	3	C
*Banded	3 1/2	C
*Banded	4	C
*Banded	4 1/2	C
*Banded	5	C
*Banded	6	C

*Also carried in stock galvanized.

STANDARD MALLEABLE IRON FITTINGS
 REVISED CLASSIFICATION—JUNE 1, 1917
TEES

The run is first named, then the outlet, thus: $\frac{1}{2} \text{ T } \frac{1}{2} = \frac{1}{2} \times \frac{3}{4}$; $\frac{1}{2} \text{ T } \frac{3}{8} = \frac{1}{2} \times \frac{3}{8} \times \frac{3}{4}$.

	Size	Class		Size	Class		Size	Class			
*Banded & Plain	$\frac{1}{8} \times$	$\frac{1}{8} \times$	$\frac{1}{8} \text{ A}$	*Banded	$1\frac{1}{2} \times$	$\frac{1}{2} \times 1$	B	*Banded & Plain	2	$x 2$	$x \frac{3}{4} \text{ C}$
*Plain	$\frac{1}{8} \times$	$\frac{1}{8} \times$	$\frac{1}{4} \text{ A}$	*Banded	$1\frac{1}{4} \times$	$\frac{1}{2} \times 1\frac{1}{4}$	B	*Banded & Plain	2	$x 2$	$x 1 \text{ C}$
*Plain	$\frac{1}{4} \times$	$\frac{1}{4} \times$	$\frac{1}{8} \text{ A}$	*Banded	$1\frac{1}{4} \times$	$\frac{3}{4} \times \frac{3}{4} \text{ C}$		*Banded & Plain	2	$x 2$	$x 1\frac{1}{4} \text{ C}$
*Banded & Plain	$\frac{1}{4} \times$	$\frac{1}{4} \times$	$\frac{1}{4} \text{ B}$	*Banded	$1\frac{1}{4} \times$	$\frac{2}{3} \times 1$	C	*Banded & Plain	2	$x 2$	$x 1\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{1}{4} \times$	$\frac{1}{4} \times$	$\frac{3}{8} \text{ B}$	*Banded	$1\frac{1}{4} \times$	$\frac{3}{4} \times 1\frac{1}{4} \text{ C}$		*Banded & Plain	2	$x 2$	$x 2 \text{ C}$
*Plain	$\frac{3}{8} \times$	$\frac{1}{4} \times$	$\frac{1}{4} \text{ B}$	*Plain	$1\frac{1}{4} \times 1$	$x \frac{3}{8} \text{ B}$		*Banded	2	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Plain	$\frac{3}{8} \times$	$\frac{1}{4} \times$	$\frac{3}{8} \text{ B}$	*Banded	$1\frac{1}{4} \times 1$	$x \frac{1}{2} \text{ B}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 1\frac{1}{2} \text{ C}$
*Plain & Banded	$\frac{3}{8} \times$	$\frac{3}{8} \times$	$\frac{1}{8} \text{ A}$	*Banded	$1\frac{1}{4} \times 1$	$x \frac{3}{4} \text{ C}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 2 \frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{8} \times$	$\frac{3}{8} \times$	$\frac{1}{4} \text{ B}$	*Banded & Plain	$1\frac{1}{4} \times 1$	$x 1 \text{ C}$		*Banded	$2\frac{1}{2}$	$x 1\frac{1}{2}$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{8} \times$	$\frac{3}{8} \times$	$\frac{3}{8} \text{ B}$	*Banded & Plain	$1\frac{1}{4} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{8} \times$	$\frac{3}{8} \times$	$\frac{1}{2} \text{ B}$	*Banded & Plain	$1\frac{1}{4} \times 1$	$x 1\frac{1}{4} \text{ B}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 3 \frac{1}{4} \text{ C}$
*Banded & Plain	$\frac{1}{2} \times$	$\frac{1}{4} \times$	$\frac{1}{2} \text{ B}$	*Banded & Plain	$1\frac{1}{4} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Plain	$\frac{1}{2} \times$	$\frac{3}{8} \times$	$\frac{1}{4} \text{ B}$	*Banded & Plain	$1\frac{1}{4} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{1}{2} \times$	$\frac{3}{8} \times$	$\frac{3}{8} \text{ B}$	*Banded & Plain	$1\frac{1}{4} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Plain	$\frac{1}{2} \times$	$\frac{1}{2} \times$	$\frac{1}{2} \text{ B}$	*Banded	$1\frac{1}{4} \times 1$	$x 1\frac{1}{2} \text{ C}$		*Banded	$2\frac{1}{2}$	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Banded	$\frac{3}{8} \times$	$\frac{3}{8} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times$	$\frac{3}{8} \times 1\frac{1}{2} \text{ B}$		*Banded	2	$x 2$	$x 3 \text{ C}$
*Plain	$\frac{1}{2} \times$	$\frac{3}{8} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times$	$\frac{1}{2} \times 1\frac{1}{2} \text{ B}$		*Banded	3	$x 2$	$x 2 \text{ C}$
*Banded & Plain	$\frac{1}{2} \times$	$\frac{1}{2} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times$	$\frac{3}{4} \times \frac{3}{4} \text{ C}$		*Banded	3	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{1}{2} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times$	$\frac{3}{4} \times 1\frac{1}{4} \text{ C}$		*Banded	3	$x 2$	$x 3 \text{ C}$
*Plain & Banded	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{3}{8} \text{ B}$	*Banded	$1\frac{1}{2} \times$	$\frac{3}{4} \times 1\frac{1}{4} \text{ C}$		*Banded	3	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{1}{2} \text{ B}$	*Banded	$1\frac{1}{2} \times$	$\frac{3}{4} \times 1\frac{1}{2} \text{ C}$		*Banded	3	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times$	$\frac{1}{2} \times 1 \text{ C}$		*Banded	3	$x 2$	$x 2\frac{1}{2} \text{ C}$
*Plain	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$x 1 \text{ C}$		*Banded	3	$x 3$	$x \frac{3}{4} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{1}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	3	$x 3$	$x 1 \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{1}{2} \times$	$\frac{3}{8} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$x 1\frac{1}{2} \text{ C}$		*Banded	3	$x 3$	$x 1\frac{1}{4} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{1}{2} \times$	$\frac{1}{2} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$x 1\frac{1}{4} \text{ B}$		*Banded	3	$x 3$	$x 1\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{1}{2} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	3	$x 3$	$x 2 \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	3	$x 3$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{1}{2} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$x 1\frac{1}{4} \text{ C}$		*Banded	3	$x 3$	$x 3 \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{3}{8} \times$	$\frac{3}{4} \text{ C}$	*Banded	$1\frac{1}{2} \times 1$	$x 1\frac{1}{2} \text{ B}$		*Banded	$3\frac{1}{2}$	$x 3\frac{1}{2}$	$x 2\frac{1}{2} \text{ C}$
*Banded	$\frac{1}{2} \times$	$\frac{1}{2} \times 1$	B	*Banded	$1\frac{1}{2} \times 1$	$\frac{1}{2} \times \frac{3}{8} \text{ B}$		*Banded	$3\frac{1}{2}$	$x 3\frac{1}{2}$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{1}{2} \times 1$	B	*Banded & Plain	$1\frac{1}{2} \times 1$	$\frac{1}{2} \times 1 \text{ C}$		*Banded	$3\frac{1}{2}$	$x 3\frac{1}{2}$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	$\frac{3}{4} \times$	$\frac{3}{4} \times 1$	C	*Banded & Plain	$1\frac{1}{2} \times 1$	$\frac{1}{2} \times 1\frac{1}{2} \text{ C}$		*Banded	4	$x 3$	$x 4 \text{ C}$
*Plain	1	x	$\frac{3}{8} \times \frac{3}{4} \text{ B}$	*Banded & Plain	$1\frac{1}{2} \times 1$	$\frac{1}{2} \times 1\frac{1}{4} \text{ C}$		*Banded	4	$x 4$	$x 1 \text{ C}$
*Banded & Plain	1	x	$\frac{3}{8} \times 1 \text{ B}$	*Banded & Plain	$1\frac{1}{2} \times 1$	$\frac{1}{2} \times 1\frac{1}{2} \text{ C}$		*Banded	4	$x 4$	$x 1\frac{1}{2} \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times \frac{3}{8} \text{ B}$	*Banded	1	$x 1$	$x 2 \text{ C}$	*Banded	4	$x 4$	$x 2 \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times \frac{1}{2} \text{ B}$	*Banded	$1\frac{1}{4} \times 1$	$x 2 \text{ C}$		*Banded	4	$x 4$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times \frac{3}{4} \text{ B}$	*Banded	$1\frac{1}{2} \times 1$	$\frac{1}{2} \times 1\frac{1}{2} \text{ C}$		*Banded	4	$x 4$	$x 3 \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times 1 \text{ B}$	*Banded & Plain	$1\frac{1}{2} \times 1$	$\frac{1}{2} \times 1\frac{1}{2} \text{ C}$		*Banded	4	$x 4$	$x 1 \frac{1}{4} \text{ C}$
*Plain	1	x	$\frac{3}{4} \times \frac{3}{8} \text{ B}$	*Banded	2	x	$\frac{3}{8} \times \text{B}$	*Banded	4	$x 4$	$x 1 \frac{1}{4} \text{ C}$
*Banded & Plain	1	x	$\frac{3}{4} \times \frac{1}{2} \text{ B}$	*Banded	2	x	$\frac{1}{2} \times 2 \text{ B}$	*Banded	4	$x 4$	$x 4 \text{ C}$
*Banded & Plain	1	x	$\frac{3}{4} \times \frac{3}{4} \text{ C}$	*Banded	2	x	$\frac{3}{4} \times 2 \text{ C}$	*Banded	$4\frac{1}{2}$	$x 4\frac{1}{2}$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	1	x	$\frac{3}{4} \times 1 \text{ C}$	*Banded	2	$x 1$	$x 2 \text{ C}$	*Banded	5	$x 5$	$x 3 \text{ C}$
*Plain	1	x	$\frac{1}{2} \times \frac{1}{4} \text{ B}$	*Banded	2	$x 1\frac{1}{4} \times 1\frac{1}{4} \text{ C}$		*Banded	5	$x 5$	$x 4 \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times \frac{3}{8} \text{ B}$	*Banded	2	$x 1\frac{1}{4} \times 1\frac{1}{2} \text{ C}$		*Banded	5	$x 5$	$x 5 \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times \frac{1}{2} \text{ B}$	*Banded	2	$x 1\frac{1}{4} \times 2 \text{ C}$		*Banded	6	$x 6$	$x 2 \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times \frac{3}{4} \text{ C}$	*Banded	2	$x 1\frac{1}{2} \times 1 \text{ C}$		*Banded	6	$x 6$	$x 2\frac{1}{2} \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times 1 \text{ C}$	*Banded	2	$x 1\frac{1}{2} \times 1\frac{1}{4} \text{ C}$		*Banded	6	$x 6$	$x 3 \text{ C}$
*Banded	1	x	$\frac{3}{4} \times 1 \frac{1}{4} \text{ C}$	*Banded	2	$x 1\frac{1}{2} \times 1\frac{1}{2} \text{ C}$		*Banded	6	$x 6$	$x 4 \text{ C}$
*Banded	1	x	$\frac{1}{2} \times \frac{3}{4} \text{ C}$	*Banded & Plain	2	$x 1\frac{1}{2} \times 2 \text{ C}$		*Banded	6	$x 6$	$x 4 \text{ C}$
*Banded & Plain	1	x	$\frac{1}{2} \times 1 \frac{1}{4} \text{ C}$	*Banded	2	$x 2$	$x \frac{3}{8} \text{ B}$	*Banded	6	$x 6$	$x 6 \text{ C}$
*Banded	1	x	$\frac{1}{2} \times \frac{3}{8} \times 1 \frac{1}{4} \text{ B}$	*Banded	2	$x 2$	$x \frac{1}{2} \text{ B}$	*Also carried in stock galvanized.			

STANDARD MALLEABLE IRON FITTINGS

REVISED CLASSIFICATION—JUNE 1, 1917

FOUR-WAY TEES

	Size	Class
*Plain	3/8	B
*Plain	1/2	B
*Plain	3/4	B
*Plain	1	B
*Plain	1 1/4	B
*Plain	1 1/2	B
*Plain	2	B

SERVICE TEES

Banded	1/4 x 1/4 x 1/4	B
*Banded	3/8 x 3/8 x 3/8	B
*Banded	1/2 x 1/2 x 1/2	B
*Banded	3/4 x 3/4 x 3/4	B
*Banded	3/4 x 3/4 x 1	B
*Banded	1 x 3/4 x 1	B
*Banded	1 x 1 x 3/4	B
*Banded	1 x 1 x 1	C
*Banded	1 x 1 x 1 1/4	C
*Banded	1 1/4 x 3/4 x 1 1/4	C
*Banded	1 1/4 x 1 1/4 x 1 1/4	C
*Banded	1 1/4 x 1 1/4 x 1 1/4	C
Banded	1 1/4 x 1 x 1	C
*Banded	1 1/2 x 3/4 x 1 1/2	C
*Banded	1 1/2 x 1 1/4 x 1 1/2	C
*Banded	1 1/2 x 1 1/2 x 1 1/2	C
*Banded	2 x 1 1/2 x 2	C
*Banded	2 x 2 x 2	C

SERVICE TEES

OTHER VARIATIONS

Banded	{ 1 1/4 Female x	
	{ 1 1/4 " x	C
	{ 3/4 Male	
Banded	{ 1 Female x	
	{ 1 " x	C
	{ 1 Male	

CAPS

*Plain	1/8	A
*Plain	1/4	B
*Plain	3/8	B
*Plain	1/2	B
*Banded & Plain	3/4	B
*Banded & Plain	1	B
*Banded & Plain	1 1/4	C
*Banded & Plain	1 1/2	C
*Banded & Plain	2	C
*Banded	2 1/2	C
*Banded	3	C
*Banded	3 1/2	C
*Banded	4	C
*Banded	5	C
*Banded	6	C

CROSSES

The outlets of Crosses listed below are the same size, and both are denoted by the last figure.

	Size	Class
*Plain	1/4 x 1/4	B
*Plain	3/8 x 3/8	B
*Plain	1/2 x 1/2	B

	Size	Class
*Plain	3/4 x 3/4	B
*Plain	1/2 x 3/8	B

	Size	Class
*Plain	1/2 x 3/8	B
*Plain	1/2 x 2 x 3/8	B

	Size	Class
*Plain	3/4 x 3/4	B
*Plain	1/2 x 3/4	B

	Size	Class
*Plain	1/2 x 1 x 3/4	B
*Plain	1/2 x 1 x 1	B

	Size	Class
*Plain	1/2 x 1 x 1 1/4	C
*Plain	1 1/4 x 1 1/4 x 1 1/4	C

	Size	Class
*Plain	1 1/4 x 1 1/4 x 1 1/4	C
*Plain	1 1/4 x 1 1/4 x 1 1/4	C

	Size	Class
*Plain	1 1/4 x 1 x 1	C
*Plain	1 1/2 x 1 1/4 x 1 1/2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	2 x 1 1/2 x 2	C

	Size	Class
*Plain	2 x 2 x 2	C
*Plain	2 x 2 x 2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	1 1/2 x 1 1/2 x 1 1/2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	1 1/2 x 1 1/2 x 1 1/2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	1 1/2 x 1 1/2 x 1 1/2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	1 1/2 x 1 1/2 x 1 1/2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	1 1/2 x 1 1/2 x 1 1/2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	1 1/2 x 1 1/2 x 1 1/2	C

	Size	Class
*Plain	1 1/2 x 1 1/2 x 1 1/2	C
*Plain	1 1/2 x 1 1/2 x 1 1/2	C

DROP ELBOWS

FEMALE

	Size	Class
*Plain	1/4 x 1/4	B
Plain	3/8 x 1/4	B
*Plain	3/8 x 3/8	B
*Plain	1/2 x 1/2	B
*Plain	3/4 x 1/2	B
*Plain	3/4 x 3/4	B

DROP ELBOWS

MALE AND FEMALE

	Size	Class
*Plain	1/4 x 3/8	B
*Plain	3/8 x 3/8	B
*Plain	1/2 x 3/8	B
*Plain	1/2 x 1/2	B
*Plain	3/4 x 1/2	B
*Plain	3/4 x 3/4	B

LONG DROP ELBOWS

FEMALE

	Size	Class
Plain	3/6 x 3/8 x 1/4	B
Plain	3/8 x 3/8 x 1/4	B
Plain	1/2 x 3/8 x 3/8	B
Plain	1/2 x 1/2 x 3/8	B
Plain	1/2 x 1/2 x 1/2	B
Plain	3/4 x 1/2 x 3/8	B
Plain	3/4 x 1/2 x 1/2	B
Plain	3/4 x 3/4 x 1/4	B
Plain	3/4 x 3/4 x 3/4	B

DROP TEES

MALE AND FEMALE

	Size	Class
*Plain	3/8 x 3/8 x 3/8	B
*Plain	1/2 x 3/8 x 3/8	B
*Plain	1/2 x 1/2 x 3/8	B
*Plain	3/4 x 3/4 x 3/8	B
*Plain	3/4 x 3/4 x 1/2	B
*Plain	1 x 1	B

OFFSETS

	Size	Class
All Sizes	3/4, 1, 1 1/4	B

EXTENSION PIECES

MALE AND FEMALE

	Size	Class
*	3/8 x 3/8	B
*	1/2 x 1/2	B

1 x 1

	Size	Class
1	x 1	B

* Also carried in stock galvanized.

STANDARD MALLEABLE IRON FITTINGS

REVISED CLASSIFICATION—JUNE 1, 1917

*Also carried in stock galvanized.

STANDARD MALLEABLE IRON FITTINGS

90° STRAIGHT AND REDUCING ELBOWS



Fig. 11419A

90° STREET ELBOWS



Fig. 11419C

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/8	.06	.08	2	.50	.90
1/4	.07	.09	2 1/2	.90	1.50
3/8	.08	.11	3	1.50	2.60
1/2	.10	.14	3 1/2	2.25	3.75
5/8	.15	.20	4	3.00	5.00
1	.22	.32	4 1/2	3.50	5.75
1 1/4	.25	.40	5	4.00	6.50
1 1/2	.35	.60	6	6.50	10.00

90° RIGHT AND LEFT ELBOWS

1/4	.09	.12	1	.25	.35
3/8	.11	.16	1 1/4	.30	.45
1/2	.13	.17	1 1/2	.40	.65
5/8	.17	.23	2	.65	1.00

45° ELBOWS



Fig. 11419B

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
1/4	.08	.12	2 1/2	1.25	1.90
3/8	.10	.15	3	2.50	3.75
1/2	.12	.20	3 1/2	3.25	4.75
5/8	.18	.25	4	4.50	6.75
1	.26	.40	4 1/2	5.25	7.75
1 1/4	.36	.50	5	6.00	9.00
1 1/2	.54	.85	6	7.50	11.00
2	.82	1.35	...	...	...

60° ELBOWS

Size Inches	PRICE, EACH		Size In.	PRICE, EACH	
	Black	Galvanized		Black	Galv.
1 1/4	.30	.45	3/8	.08	.10
1 1/2	.45	.70	1/2	.10	.15
2	.65	1.05	5/8	.18	.25

90° STREET ELBOWS



Fig. 11419C

45° STREET ELBOWS



Fig. 11419D

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
3/8	.12	.15	1 1/2	.55	.80
1/2	.12	.15	2	.90	1.30
5/8	.20	.28	2 1/2	1.50	2.25
1	.25	.35	3	2.25	...
1 1/4	.40	.55	4	2.50	...

SIDE OUTLET ELBOWS



Fig. 11419E

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
3/8	.08	.10	1 1/4	.45	.65
1/2	.10	.15	1 1/2	.60	.90
5/8	.18	.25	2	1.00	1.50

STANDARD MALLEABLE IRON FITTINGS

DROP ELBOWS

FEMALE



Fig. 11420A

Size Inches	PRICE, EACH		Size Inches		
	Black	Galvanized			
1/4	.06	.09	3/8	.10	.15
5/8	.08	.12	1/2	.14	.25
1/2	.12	.20	3/4	.22	.40
3/4	.20	.35	1	.30	.55

DROP TEES

FEMALE



Fig. 11420D

Size Inches	PRICE, EACH		Size Inches		
	Black	Galvanized			
3/8	.10	.15	1/2	.14	.25
1/2	.14	.25	3/4	.22	.40
3/4	.22	.40	1	.30	.55

DROP ELBOWS
MALE AND FEMALE

Fig. 11420B

Size Inches	PRICE, EACH		Size Inches		
	Black	Galvanized			
5/8	.08	.12	3/4	.22	.40
1/2	.12	.20	1	.30	.55

DROP TEES
MALE AND FEMALE

Fig. 11420E

Size Inches	PRICE, EACH		Size Inches		
	Black	Galvanized			
3/8	.10	.15	1/2	.14	.25
1/2	.14	.25	3/4	.22	.40
3/4	.22	.40	1	.30	.55

LONG DROP ELBOWS



Fig. 11420C

Size Inches	Drop Length	PRICE, EACH		Size Inches
	Over All Inches	Black	Galva- nized	
1 1/4 x 3/8	2 3/8	.10	.18	3/8
3/8 x 3/8	2 1/2	.10	.18	3/4 x 3/4 x 1/2
1 1/2 x 3/8	3 1/8	.18	.27	1 x 1 x 1/2
1 1/2 x 1/2	3 1/8	.18	.27	1 1/4 x 1 1/4 x 1/2

LONG DROP TEES

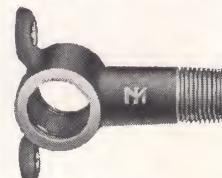


Fig. 11420F

Drop Length Over All Inches	PRICE, EACH		Size Inches
	Black	Galva- nized	
2 1/2	.12	.17	3/8
3 1/8	.30	...	3 3/8
3 3/8	.40	...	3 3/4
3 3/4	.60	...	3 1/2

STANDARD MALLEABLE IRON FITTINGS

STRAIGHT TEES



Fig. 11421A

SERVICE TEES



Fig. 11421D

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{8}$	.07	.09	2	.60	1.00
$\frac{1}{4}$	.08	.10	$2\frac{1}{2}$	1.05	1.90
$\frac{3}{8}$	.09	.13	3	1.70	3.00
$\frac{1}{2}$	.11	.16	$3\frac{1}{2}$	2.50	4.25
$\frac{3}{4}$	.15	.20	4	3.40	5.75
1	.25	.38	$4\frac{1}{2}$	4.25	7.00
$1\frac{1}{4}$	.30	.50	5	5.00	8.00
$1\frac{1}{2}$	.45	.70	6	7.75	12.00

If R. and L. tees are desired, state, when ordering, which hole is to be tapped left-hand. Can always be furnished to order.

REDUCING TEES



Fig. 11421E

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{8}$	.07	.09	2	.60	1.00
$\frac{1}{4}$	.08	.10	$2\frac{1}{2}$	1.05	1.90
$\frac{3}{8}$	.09	.13	3	1.70	3.00
$\frac{1}{2}$	.11	.16	$3\frac{1}{2}$	2.50	4.25
$\frac{3}{4}$	.15	.20	4	3.40	5.75
1	.25	.38	$4\frac{1}{2}$	4.25	6.75
$1\frac{1}{4}$	.30	.50	5	5.00	8.00
$1\frac{1}{2}$	.45	.70	6	7.75	12.00

FOUR-WAY TEES



Fig. 11421C

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{3}{8}$	.12	.17	$1\frac{1}{4}$	.50	.70
$\frac{1}{2}$	.14	.20	$1\frac{1}{2}$	.80	1.10
$\frac{3}{4}$	.20	.28	2	1.25	1.75
1	.35	.50	...	....	....

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{3}{8}$	.12	.15	2	1.15	1.65
$\frac{1}{2}$	.15	.20	$2\frac{1}{2}$	2.00	2.75
$\frac{3}{4}$	.25	.35	3	2.50	3.50
1	.35	.50	$3x2\frac{1}{2}x3$	2.50	3.50
$1\frac{1}{4}$	.50	.70	$3x3$ x4	4.00	6.00
$1\frac{1}{2}$	.75	1.10	....	....	....

Y BENDS

STRAIGHT AND REDUCING

Size In.	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{2}$	.40	.60
$\frac{3}{4}$	.50	.75
1	.60	.90
$1\frac{1}{4}$	.80	1.25
$1\frac{1}{2}$	1.00	1.50
2	1.70	2.50
$2\frac{1}{2}$	2.00	3.00
3	4.00	6.00
4	5.50	8.25

60° Y BENDS NOT ILLUSTRATED

Size Inches	PRICE, EACH Black	PRICE, EACH Galvanized
2x2	1.70	2.50
2x1 $\frac{1}{2}$	1.70	2.50

CROSSES STRAIGHT AND REDUCING



Fig. 11421F

Size In.	PRICE, EACH Black	PRICE, EACH Galv.	Size In.	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{4}$	.09	.12	2	1.00	1.50
$\frac{3}{8}$	.10	.14	$2\frac{1}{2}$	1.75	2.75
$\frac{1}{2}$	.16	.25	3	3.00	4.50
$\frac{3}{4}$	.20	.29	$3\frac{1}{2}$	3.25	5.00
1	.30	.45	4	5.25	8.00
$1\frac{1}{4}$	.40	.60	5	7.50	11.00
$1\frac{1}{2}$	.60	.90	6	13.00	19.00

STANDARD MALLEABLE IRON FITTINGS

COUPLINGS

RIGHT HAND



Fig. 11422A

RIGHT AND LEFT



Fig. 11422B

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{4}$	.03	.05	$\frac{1}{4}$	.04	.06
$\frac{3}{8}$	.05	.07	$\frac{3}{8}$	.06	.09
$\frac{1}{2}$	.07	.10	$\frac{1}{2}$	.08	.10
$\frac{3}{4}$	.10	.17	$\frac{3}{4}$	.12	.17
1	.14	.23	1	.16	.25
$1\frac{1}{4}$	.20	.30	$1\frac{1}{4}$	.25	.35
$1\frac{1}{2}$	.25	.40	$1\frac{1}{2}$	.36	.55
2	.35	.55	2	.52	.75
$2\frac{1}{2}$	.60	.95	$2\frac{1}{2}$	.70	1.05
3	.90	1.40	3	1.00	1.50

OFFSET REDUCING COUPLINGS



Fig. 11422C

This fitting is the same as a male and female reducer, except that the inlet and outlet are on the same level. By its use water pockets are prevented.

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
1 x $\frac{3}{4}$	.60	$2\frac{1}{2}$ x2	1.80	4 x $3\frac{1}{2}$	4.00
$1\frac{1}{4}$ x1	.70	3 x $2\frac{1}{2}$	2.50	$4\frac{1}{2}$ x4	5.00
$1\frac{1}{2}$ x1 $\frac{1}{4}$	.90	$3\frac{1}{2}$ x3	3.00	5 x4	6.00
2 x $1\frac{1}{2}$	1.10	4 x3	4.00	5 x $4\frac{1}{2}$	6.00

REDUCERS



Fig. 11422D

Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.
$\frac{1}{4}$	.05	.08	$1\frac{1}{2}$	.28	.45
$\frac{3}{8}$	.06	.10	2	.45	.75
$\frac{1}{2}$	.07	.10	$2\frac{1}{2}$	.70	1.05
$\frac{3}{4}$	.10	.15	3	1.00	1.65
1	.16	.25	$3\frac{1}{2}$	1.50	2.40
$1\frac{1}{4}$	.20	.35	4	1.85	3.05

OFFSETS



Fig. 11422E

Size Inches	Offset Inches	Length Inches	Price Each
$\frac{3}{4}$	$1\frac{1}{2}$	$3\frac{1}{4}$	.25
1	$1\frac{1}{2}$	4	.40
2	5 $\frac{3}{8}$		.75

CAPS



Fig. 11422F

Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Black	PRICE, EACH Galv.	
$\frac{1}{4}$	.03	.04	2	.32	.52
$\frac{3}{8}$	.04	.05	$2\frac{1}{2}$	.45	.76
$\frac{1}{2}$	.05	.08	3	.85	1.30
$\frac{3}{4}$	.08	.12	$3\frac{1}{2}$	1.00	1.60
1	.12	.17	4	1.20	2.00
$1\frac{1}{4}$	.16	.24	5	2.50	3.50
$1\frac{1}{2}$	.24	.38	6	3.50	5.00

Hexagon malleable cups can be furnished, sizes $\frac{1}{4}$, $\frac{3}{8}$ and $\frac{1}{2}$ inch at special price.

CROSS OVERS



Fig. 11422G

Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Black	PRICE, EACH Galvanized
$\frac{1}{2}$	.20			.25
$\frac{3}{4}$	.30			.40
1	.45			.60

WASH TRAY TEES



Fig. 11422H

Made of malleable iron, galvanized.

Size Inches	Price Each
$\frac{1}{2}$	.20
$\frac{3}{4}$	.30

STANDARD MALLEABLE IRON FITTINGS

RETURN BENDS

CLOSE PATTERN



Fig. 11423A

MEDIUM PATTERN



Fig. 11423C

Size Inches	Center Inches	PRICE, EACH			
		RIGHT Black	HAND Galv.	RIGHT Black	AND LEFT Galv.
$\frac{1}{2}$	1	.18	.25	.23	.35
$\frac{3}{4}$	$1\frac{1}{4}$	.25	.35	.30	.40
1	$1\frac{1}{2}$	.35	.55	.45	.65
$1\frac{1}{4}$	$1\frac{3}{4}$	.50	.75	.60	.85
$1\frac{1}{2}$	$2\frac{3}{8}$	.75	1.15	.90	1.30
2	$2\frac{5}{8}$	1.00	1.65	1.25	1.90

Close pattern return bends will not make up parallel coils, as the distance, center to center of two adjacent bends, is greater than the center to center of openings of a single bend.

Size Inches	Center Inches	PRICE, EACH			
		RIGHT Black	HAND Galv.	RIGHT Black	AND LEFT Galv.
$\frac{1}{2}$	$1\frac{1}{4}$	.18	.25	.25	.23
$\frac{3}{4}$	$1\frac{1}{2}$	.25	.35	.30	.40
1	$1\frac{7}{8}$	.35	.55	.45	.65
$1\frac{1}{4}$	$2\frac{1}{4}$	.50	.75	.60	...
$1\frac{1}{2}$	$2\frac{1}{2}$	.75	1.15	.90	...
2	3	1.00	1.65	1.25	...

SPECIAL WIDE PATTERN

RIGHT HAND

OPEN PATTERN



Fig. 11423B



Fig. 11423D

Size Inches	Center Inches	PRICE, EACH			
		RIGHT Black	HAND Galv.	RIGHT Black	AND LEFT Galv.
$\frac{1}{2}$	$1\frac{1}{2}$	.20	.28	.25	...
$\frac{3}{4}$	2	.30	.45	.38	.55
1	$2\frac{1}{2}$	.50	.70	.60	.80
$1\frac{1}{4}$	3	.65	.90	.80	1.05
$1\frac{1}{2}$	$3\frac{1}{2}$	.85	1.25	1.05	1.50
2	4	1.25	2.00	1.55	2.40
$2\frac{1}{2}$	$4\frac{1}{2}$	2.00	3.50	2.50	...
3	5	3.00	5.00	3.75	...

Size Inches	Center Inches	PRICE, EACH	
		Black	Galv.
$\frac{3}{8}$	$1\frac{1}{2}$	.25	.30
$\frac{3}{4}$	4	1.00	1.35
$\frac{3}{4}$	6	1.25	1.65
1	6	1.25	1.70
$1\frac{1}{4}$	6	1.25	1.70
$1\frac{1}{2}$	6	2.00	2.75
2	5	3.00	4.00
2	6	4.00	5.00
$2\frac{1}{2}$	7 $\frac{1}{2}$	5.00	6.50
3	8	5.00	6.50
3	6	8.00	...
6	12	16.00	...

STANDARD MALLEABLE IRON FITTINGS

BUSHINGS



Fig. 11424A

HEXAGON NIPPLES



Fig. 11424E

REDUCING ONE SIZE ONLY

Size In.	PRICE, EACH Black Galv.	Size In.	PRICE, EACH Black Galv.
$\frac{1}{4}$	.04	$1\frac{1}{4}$	.07
$\frac{3}{8}$	.04	$1\frac{1}{2}$	.09
$\frac{1}{2}$	.04	2	.14
$\frac{3}{4}$	.05	$2\frac{1}{2}$	.21
1	.06	...	...

FACED BUSHINGS



Fig. 11424B

Size Inches	Black Price Each	Size Inches	Black Price Each	Size Inches	Black Price Each
$\frac{1}{4}$	.20	1	.30	$2\frac{1}{2}$	1.10
$\frac{3}{8}$	.20	$1\frac{1}{4}$	.40	3	1.50
$\frac{1}{2}$	.20	$1\frac{1}{2}$	.50	$3\frac{1}{2}$	1.90
$\frac{3}{4}$	.25	2	.70	4	2.40

Hexagon nipples are regularly furnished right and left hand. Right hand at special prices.

EXTENSION PIECES

Size Inches	PRICE, EACH Black Galv.
$\frac{3}{8}$	.06
$\frac{1}{2}$	.09
$\frac{3}{4}$	.12
1	.14

Fig. 11424F

CHANDELIER HOOKS



Fig. 11424G

LOCKNUTS



Fig. 11424C

Size Inches	Price Each
$\frac{3}{8}$	.10
$\frac{1}{2}$	.12

WASTE NUTS



Fig. 11424D

Size Inches	Price Each
$\frac{3}{8}$	.10
$\frac{1}{2}$	.12

Fig. 11424H

WALL PLATES

Size Inches	Price Each
$\frac{3}{8}$	.12
$\frac{1}{2}$	.16
$\frac{3}{4}$	.30



Fig. 11424J

STREET WASHER KEYS, HYDRANT CLAMPS, ETC.

STREET WASHER KEYS

MALLEABLE IRON



Fig. 8670A

Price.....per pound .15

STREET WASHER GUIDE AND CHECKS

CAST IRON



Fig. 8670B

Price.....per pound .15

No. 1 HYDRANT HANDLES

MALLEABLE IRON



Fig. 8670C

Has $\frac{3}{8}$ -inch pipe thread.

Price.....per pound .20

No. 2 HYDRANT HANDLES

MALLEABLE IRON



Fig. 8670D

For $\frac{3}{8}$ -inch square rod.

Price.....per pound .15

HYDRANT CLAMPS

MALLEABLE IRON



Fig. 8670E

Price, for Square Rod	per pound	.15
" " $\frac{3}{8}$ -inch I. P.	"	.18
" " $\frac{1}{2}$ " I. P.	"	.20

HYDRANT SOCKETS

MALLEABLE IRON



Fig. 8670F

Price.....per pound .15

HYDRANT ROD RESTS

CAST IRON



Fig. 8670G

Price.....per dozen .96

LOAFER CUSHIONS

CAST IRON



Fig. 8670H

Made to fit 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-inch rail.
Length, 23 inches.

Price, per Sectioneach .35

NOKOROS UNIONS

(PATENTED)

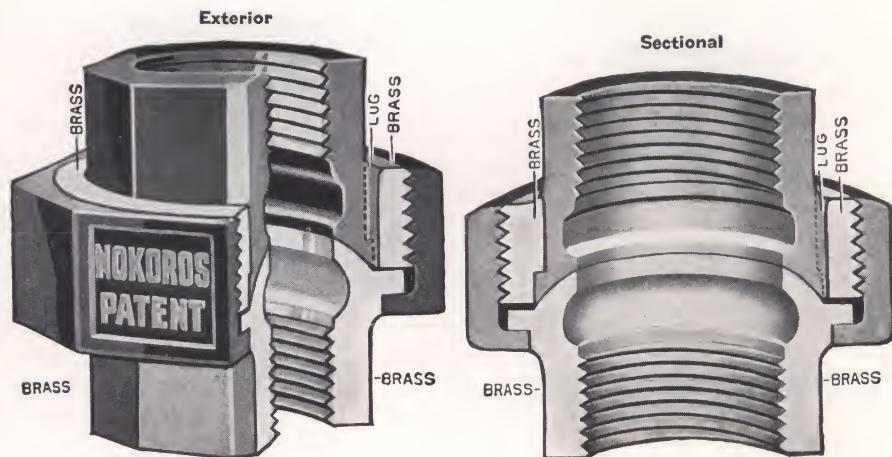


Fig. 8595A

The Nokoros Union is the only union made absolutely non-corrosive brass to iron at all contact points.

The advantage is that if there is any reason to disconnect the joint at any future time, same can be readily done as the brass to iron joint will not rust together as an "iron to iron" joint will do.

Further, a brass to iron thread connection at the ring—a thread connection of two different metals will not rust together and the joint can be disconnected and reconnected as often as may be necessary.

These unions are made with octagon ends so an ordinary monkey wrench will tighten the sections.

All Nokoros Unions are subjected to the severest test yet devised; namely, compressed air under water—the union is connected with a high pressure air line, placed under water and if any leaks are present the tiny air bubbles tell the story.

The Nokoros Unions are made of Imico refined air furnace malleable iron and the best grade of steam metal and they have earned the good opinion of those who have used them.

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Plain	Galvanized		Plain	Galvanized
1/8	.30	.45	1 1/4	1.20	1.80
1/4	.30	.45	1 1/2	1.60	2.40
3/8	.40	.60	2	2.00	3.00
1/2	.50	.75	2 1/2	3.20	4.80
5/8	.60	.90	3	4.80	7.20
1	.80	1.20	...	...	...

C. D. RAILROAD UNIONS

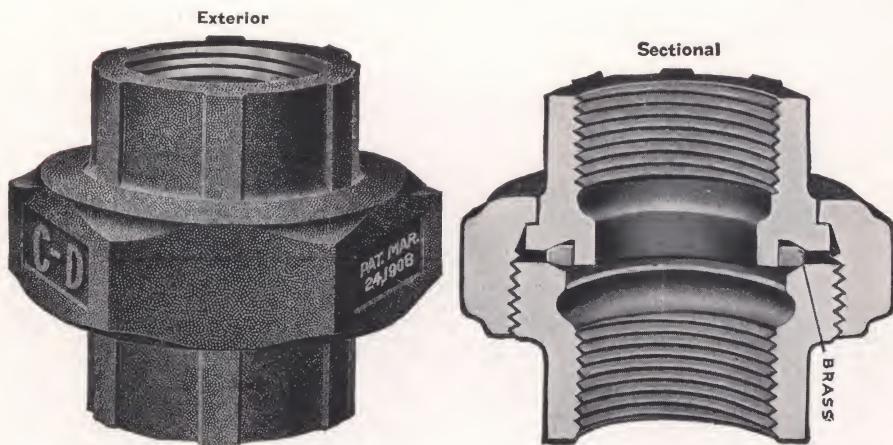


Fig. 8596A

The C. D. Railroad Unions are made of Imico refined air furnace malleable iron and have a bronze disc seat.

The cost of a gasket is saved and a real valve seat joint is made—as will be noted by referring to the sectional view. It may be observed that the face of each threaded section is beveled to receive a bronze disc—the act of connecting or turning the nut or ring brings the two sections together, compressing the bronze disc against the recesses. This makes a perfectly tight joint for steam, gas, oil, water or other fluids.

The joint being iron against brass, is non-corrosive and the union can be disconnected and used again.

The C. D. Railroad Unions have long threaded ends and are extra heavy. Each union is tested by air under water and will be found tight.

We recommend them as moderate priced combination brass and iron unions.

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Plain	Galvanized		Plain	Galvanized
1/8	.30	.45	1 1/4	1.20	1.80
1/4	.30	.45	1 1/2	1.60	2.40
3/8	.40	.60	2	2.00	3.00
1/2	.50	.75	2 1/2	3.20	4.80
5/8	.60	.90	3	4.80	7.20
1	.80	1.20	...	....	....

STANDARD MALLEABLE IRON UNIONS

SCREWED

STANDARD FEMALE UNIONS

For Steam Working Pressures Up to
150 Pounds

Fig. 8601A

STANDARD TWO-THIRD UNIONS

For Steam Working Pressures Up to
150 Pounds

Fig. 8601C

Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Black		
	Galv.		Galv.		
1/8	.18	.27	1 1/2	.58	.90
1/4	.18	.27	2	.75	1.15
3/8	.20	.30	2 1/2	1.55	2.35
1/2	.22	.33	3	2.10	3.15
5/8	.27	.40	3 1/2	3.65	5.50
1	.33	.50	4	4.35	6.50
1 1/4	.46	.70	...	...	...

Gaskets extra.

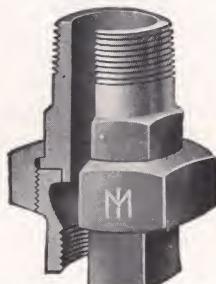
STANDARD MALE AND FEMALE
UNIONSFor Steam Working Pressures Up to
150 Pounds

Fig. 8601B

Size Inches	PRICE, EACH Black	Size Inches	PRICE, EACH Black		
	Galv.		Galv.		
1/4	.23	.32	1 1/4	.57	.81
3/8	.25	.35	1 1/2	.72	1.04
1/2	.28	.39	2	.95	1.35
5/8	.33	.46	2 1/2	1.95	2.75
1	.40	.57	...	...	...

Gaskets extra.

STANDARD FLANGE UNIONS

For Steam Working Pressures Up to
125 Pounds

MALLEABLE IRON



Fig. 8601D

Size Inches	Diam. Flanges Inches	No. of Bolts in Each	PRICE, EACH Black	PRICE, EACH Gal- vanized
3/4	2 7/8	3	1.40	2.80
1	3 1/4	4	1.60	3.20
1 1/4	3 3/4	4	2.00	4.00
1 1/2	4 5/8	4	2.50	5.00
2	5 1/2	4	3.00	6.00
2 1/2	6	4	3.50	7.00
3	6 3/4	4	4.40	8.80
3 1/2	7 1/2	4	5.25	10.50
4	8	5	6.00	12.00
4 1/2	8 5/8	5	7.00	14.00
5	9 3/8	5	8.00	16.00
6	10 5/8	6	9.00	18.00
8	13 1/8	7	18.00	36.00

UNION ELBOWS AND TEES

MALLEABLE IRON

UNION ELBOWS

FEMALE



Fig. 8602A

UNION TEES

FEMALE



Fig. 8602C

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Black	Galvanized		Black	Galvanized
1/4	.38	.57	1/4	.40	.60
3/8	.40	.60	3/8	.43	.65
1/2	.42	.63	1/2	.45	.68
5/8	.54	.81	5/8	.57	.86
1	.63	.95	1	.70	1.05
1 1/4	.90	1.35	1 1/4	.95	1.45
1 1/2	1.05	1.58	1 1/2	1.15	1.75
2	1.55	2.35	2	1.70	2.55
2 1/2	2.85	4.30	2 1/2	3.20	4.80

UNION ELBOWS

MALE



Fig. 8602B

UNION TEES

MALE



Fig. 8602D

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Black	Galvanized		Black	Galvanized
1/4	.43	.65	1/4	.48	.72
3/8	.45	.70	3/8	.50	.75
1/2	.48	.72	1/2	.52	.78
5/8	.62	.93	5/8	.65	1.00
1	.72	1.08	1	.80	1.20
1 1/4	1.05	1.60	1 1/4	1.10	1.65
1 1/2	1.20	1.80	1 1/2	1.30	1.95
2	1.80	2.70	2	1.95	2.95
2 1/2	3.30	4.95	2 1/2	3.70	5.55

MALLEABLE IRON FITTINGS

No. 1 BOILER ELBOWS

GALVANIZED



Fig. 8605A

Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4} \times \frac{3}{4} \times 1$	.40	$\frac{1}{2} \times \frac{1}{2} \times 1$	.40
$\frac{3}{4} \times \frac{1}{2} \times 1$	.40	.....	...

No. 2 UNION BOILER ELBOWS

GALVANIZED



Fig. 8605B

Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4} \times \frac{3}{4} \times 1$	.75	$\frac{1}{2} \times \frac{1}{2} \times 1$	.60
$\frac{3}{4} \times \frac{1}{2} \times 1$	.75	.....	...

NEW STYLE UNION BOILER
ELBOWS

GALVANIZED



Fig. 8605C

Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4} \times \frac{3}{4} \times 1$	.75	$\frac{1}{2} \times \frac{1}{2} \times 1$	.60
$\frac{3}{4} \times \frac{1}{2} \times 1$	.75	.....	...

No. 3 BOILER COUPLINGS

GALVANIZED



Fig. 8605D

Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4} \times \frac{3}{4} \times 1$	.40	$\frac{1}{2} \times \frac{1}{2} \times 1$	.40
$\frac{3}{4} \times \frac{1}{2} \times 1$	.....	.....	...

No. 4 UNION BOILER COUPLINGS

GALVANIZED



Fig. 8605E

Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4} \times \frac{3}{4} \times 1$	.75	$\frac{1}{2} \times \frac{1}{2} \times 1$	.60
$\frac{3}{4} \times \frac{1}{2} \times 1$	.75	.....	...

NEW STYLE UNION BOILER
COUPLINGS

GALVANIZED



Fig. 8605F

Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4} \times \frac{3}{4} \times 1$	.75	$\frac{1}{2} \times \frac{1}{2} \times 1$	.60
$\frac{3}{4} \times \frac{1}{2} \times 1$	.75	.....	...

LAWLER BOILER UNION TEES

GALVANIZED



Fig. 8605G

For bottom connection of range boiler.

Size 1-inch male, $\frac{3}{4}$ -inch union, $\frac{1}{2}$ -inch draw off.

Price each .60

BALL PATTERN RAILING FITTINGS

MALLEABLE IRON

No. 1 ELBOWS



Fig. 8402A

Size Inches	Price Each
$\frac{1}{2}$	.15
$\frac{3}{4}$	.18
1	.20
$1\frac{1}{4}$	.35
$1\frac{1}{2}$	.45
2	.72
$2\frac{1}{2}$	1.60
3	2.25

No. 2 SIDE OUTLET ELBOWS

Size Inches	Price Each
$\frac{1}{2}$	.20
$\frac{3}{4}$	.23
1	.25
$1\frac{1}{4}$	.40
$1\frac{1}{2}$	.50
2	.80
$2\frac{1}{2}$	1.75
3	2.50



Fig. 8402B

No. 3 TEES



Fig. 8402C

Size Inches	Price Each
$\frac{1}{2}$	.20
$\frac{3}{4}$	.23
1	.25
$1\frac{1}{4}$	.40
$1\frac{1}{2}$	.50
2	.75
$2\frac{1}{2}$	1.75
3	2.50

No. 4 SIDE OUTLET TEES

Size Inches	Price Each
$\frac{1}{2}$	.30
$\frac{3}{4}$	.33
1	.35
$1\frac{1}{4}$	.45
$1\frac{1}{2}$	.55
2	.90
$2\frac{1}{2}$	1.90
3	2.60



Fig. 8402D

No. 5 CROSSES



Fig. 8402E

Size Inches	Price Each
$\frac{1}{2}$	.30
$\frac{3}{4}$	.33
1	.35
$1\frac{1}{4}$	.45
$1\frac{1}{2}$	.58
2	1.00
$2\frac{1}{2}$	1.80
3	2.60

No. 6 SIDE OUTLET CROSSES



Fig. 8402F

Size Inches	Price Each
$\frac{1}{2}$	.35
$\frac{3}{4}$	.38
1	.40
$1\frac{1}{4}$	.50
$1\frac{1}{2}$	.65
2	1.35
$2\frac{1}{2}$	2.00
3	2.75

No. 7 FLANGES



Fig. 8402G

Size In.	Price Each	Size In.	Price Each
$\frac{1}{2}$	.14	$1\frac{1}{4}$	.20
$\frac{3}{4}$	.15	$1\frac{1}{2}$	.28
1	.15	2	.30

No. 8 ACORNS



Fig. 8402H

Size In.	Price Each	Size In.	Price Each
$\frac{1}{2}$	.16	$1\frac{1}{2}$	.35
$\frac{3}{4}$	.18	2	.90
1	.20	$2\frac{1}{2}$	1.35

No. 9 FLANGES



Fig. 8402J

Size .In.	Price Each	Size In.	Price Each
$\frac{1}{2}$	.16	$1\frac{1}{2}$	.50
$\frac{3}{4}$	.18	2	.90
1	.20	$2\frac{1}{2}$	1.35

In ordering railing fittings, describe kind wanted by number and size. Railing fittings will always be furnished with all openings tapped right-hand unless otherwise specified. Railing fittings tapped right and left or left-hand will be charged for at 15 per cent additional, net. For galvanized railing fittings, add 50 per cent to above list.

ADJUSTABLE RAILING FITTINGS

MALLEABLE IRON

No. 70 ELBOWS



Fig. 8403A

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	1.10	1.25	1.70	2.25

No. 70 1/2 SPECIAL ELBOWS



Fig. 8403B

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	.80	.90	1.20	1.65

No. 71 TEES



Fig. 8403C

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	1.30	1.50	2.00	2.50

No. 72 STAIR TEES



Fig. 8403D

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	1.30	1.60	2.15	2.50

No. 73 CROSSES



Fig. 8403F

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	1.50	1.75	2.35	2.75

No. 74 STAIR CROSSES



Fig. 8403F

Pipe Size... in.	1	1 1/4	1 1/2	2
Price....each	1.50	1.85	2.50	2.75

No. 75 STAIR LANDING TEES



Fig. 8403G

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	.90	1.10	1.50	2.15

No. 76 STAIR LANDING CROSSES



Fig. 8403H

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	1.00	1.20	1.60	2.40

No. 79 FLANGES



Fig. 8403J

Pipe Size...in.	1	1 1/4	1 1/2	2
Price....each	1.65	1.75	1.90	2.50

Add 50 per cent to above prices for galvanized railing fittings.

Almost any angle required for stair railings may be obtained with these fittings.

All openings will be furnished tapped right-hand. When ordered tapped otherwise they will be charged 15 per cent additional net.

In ordering describe kind wanted by number and size.

PUMP ROD COUPLINGS AND CLEVISSES

WOOD ROD COUPLINGS



Fig. 8502A

These couplings are made with a socket for the ends of the rod to be driven into to avoid splitting.

Price, 5-inch, Light, Ribbed, for 1 and 1 $\frac{1}{8}$ -inch Rods, Plain, Two-hole....per set	.40
" 5 " " " " " Galv. " " " " ".50	
" 6 " Heavy, Plain " 1 " 1 $\frac{1}{8}$ " " Plain Three " " " ".60	
" 6 " " " " " Galv. " " " " ".80	

HEXAGON ROD COUPLINGS



Fig. 8502B

BEADED IRON ROD COUPLINGS



Fig. 8502D

Made in malleable iron and brass.

Size Inches	Threads per Inch	PRICE, PER POUND		Size Inches	Threads per Inch	PRICE, PER POUND		
		Plain	Galva- nized			Plain	Galva- nized	
3/8	†14	.32	.40	1.00	3/8	†14	.32	.40
3/8	*16	.32	.40	1.00	3/8	*16	.32	.40
3/8X7/16	14x12	.32	.40	1.00	3/8X7/16	14x12	.32	.40
7/16	12	.32	.40	1.00	7/16	12	.32	.40
7/16X1/2	12	.32	.40	1.00	7/16X1/2	12	.32	.40
1/2	12	.32	.40	1.00	1/2	12	.32	.40
5/8	11	.32	.40	1.00	5/8	11	.32	.40
3/4	10	.32	.40	1.00	3/4	10	.32	.40

†Regular. *Special.

Made in malleable iron.

Size Inches	Threads per Inch	PRICE, PER POUND
3/8	†14	.32
3/8	*16	.32
3/8X7/16	14x12	.32
7/16	12	.32
7/16X1/2	12	.32
1/2	12	.32
5/8	11	.32
3/4	10	.32

†Regular. *Special.

REDUCER ROD COUPLINGS



Fig. 8502C

For $\frac{3}{8}$ and $\frac{1}{2}$ -inch pipe and steel pump rods. Couplings are furnished for $\frac{3}{8}$ and $\frac{7}{16}$ -inch rods to suit either $\frac{3}{8}$ or $\frac{1}{2}$ -inch iron pipe, male thread.

Plain or galvanized malleable iron.

Price, Plain.....	.50
" Galvanized.....	.60

HOSE CLEVISSES



Fig. 8502E

Malleable iron, $\frac{3}{4}$ or 1-inch.
Price.....each .50

DRIVE SHOES, SUCTION STRAINERS, ETC.

DRIVE SHOES

No. 433

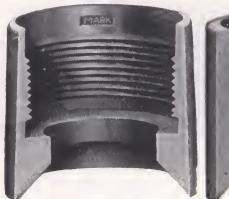


Fig. 8510A

No. 419



Fig. 8510B

No. 421



Fig. 8510C

Size Inches	No. 433 Malleable Iron	No. 419 Steel Rough	No. 419 Steel Finished	No. 421 Forged Steel
2	1.00	1.60	2.00	3.00
2½	1.40	2.20	2.60	5.00
3	1.80	3.00	4.00	7.00
3½	2.40	5.00	7.00	10.00
4	3.00	5.50	8.00	12.00
4½	....	7.50	12.00	16.00
5	....	8.50	14.00	20.00
5½	....	13.00	18.00	....
6	....	13.00	18.00	24.00
7	....	....	....	30.00
8	....	16.00	24.00	36.00
10	....	25.00	36.00	72.00
12	....	50.00	70.00	96.00
14	....	....	....	140.00
15	....	....	....	180.00
16	....	....	....	220.00

MALLEABLE IRON DRIVING CAPS

For receiving blows from wood mauls or iron sledges. Extra heavy.

Size Inches	Price Each
1½	.40
1½	.48
2	.88
2½	2.00
3	3.00



Fig. 8510D

SUCTION PIPE STRAINERS

With Set Screw



Fig. 8510E

With Male Thread



Fig. 8510F

With Female Thread



Fig. 8510G

Size Inches	PRICE, EACH		
	With Brass Gauze	Without Brass Gauze	Black without Brass Gauze
3/4	.56	.44	.36
1	.56	.44	.36
1 1/4	.64	.48	.40
1 1/2	.72	.52	.48
2	1.00	.80	.72

GLOBE STRAINERS FOR HOSE



Fig. 8510H

Size In.	Black Each	Galvanized Each	Brass Each
1 1/4	1.00	1.20	5.50
1 1/2	1.30	1.50	5.50
2	2.00	2.50	7.00

STANDARD CAST IRON FLAT BAND SCREWED FITTINGS

For Steam Working Pressures Up to 125 Pounds

For Water Working Pressures Up to 175 Pounds

We take special care in making our cast iron fittings to secure a uniform quality of iron, and take all possible precautions to exercise care in tapping, and we can confidently recommend our output such as will merit your approval.

All fittings are recessed or chamfered permitting an easy entrance of the pipe, and are threaded strictly according to the American Briggs gauge.

The general design of our fittings commends itself to all critical buyers; they are well proportioned, of right weight and generally suitable for steam working pressures, if properly installed, not exceeding 125 pounds, or for water working pressures up to 175 pounds.

These fittings have been subjected to tests which show a large factor of safety when used at these pressures, but there are so many other conditions, such as strains of expansion and contraction, the sagging of pipe lines, water hammer and other causes that it is not safe to base conclusions as to working strains entirely on the thickness or weight.

When cast iron fittings are wanted for greater steam working pressure than 125 pounds, we recommend the use of extra heavy fittings, which are suitable generally, if properly installed, for 250 pounds steam working pressure.

VARIETY OF SIZES

We enumerate on pages 24, 25, 26 and 27 standard sizes usually carried in stock, which we think are fully sufficient to meet the requirements of the trade. Fittings can be made to order if necessary, but as there is considerable expense involved in making special fittings, we recommend the use of bushings. If, however, fittings without bushings are absolutely necessary, a special price will be charged, which will be given upon receipt of specifications.

GALVANIZED CAST IRON FITTINGS

We carry a large stock of galvanized cast iron fittings, including all straight sizes and the leading reducing sizes; those not regularly carried in stock can be made to order.

STANDARD CAST IRON FLAT BAND SCREWED FITTINGS

LIST OF SIZES

90°

ELBOWS



Reducing

$\frac{1}{4}x\frac{1}{4}$	2 x2	4 x $2\frac{1}{2}$
$\frac{3}{8}x\frac{3}{8}$	2 x1 $\frac{1}{2}$	4 x 2
$\frac{3}{8}x\frac{1}{4}$	2 x1 $\frac{1}{4}$	$4\frac{1}{2}x4\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	2 x1	$4\frac{1}{2}x4$
$\frac{1}{2}x\frac{1}{2}$	2 x $\frac{3}{4}$	5 x 5
$\frac{1}{2}x\frac{1}{4}$	$2\frac{1}{2}x2\frac{1}{2}$	5 x $4\frac{1}{2}$
$\frac{3}{4}x\frac{3}{4}$	$2\frac{1}{2}x2$	5 x 4
$\frac{3}{4}x\frac{1}{2}$	$2\frac{1}{2}x1\frac{1}{2}$	5 x 3
$\frac{3}{4}x\frac{3}{8}$	$2\frac{1}{2}x1\frac{1}{4}$	5 x $2\frac{1}{2}$
$1x\frac{1}{4}$	$2\frac{1}{2}x1$	6 x 6
$1x\frac{3}{4}$	3 x3	6 x 5
$1x\frac{1}{2}$	3 x2 $\frac{1}{2}$	6 x 4
$1x\frac{3}{8}$	3 x2	7 x 7
$1\frac{1}{4}x\frac{1}{4}$	3 x1 $\frac{1}{2}$	7 x 6
$1\frac{1}{4}x1$	3 x1 $\frac{1}{4}$	8 x 8
$1\frac{1}{4}x\frac{3}{4}$	$3\frac{1}{2}x3\frac{1}{2}$	8 x 7
$1\frac{1}{4}x\frac{1}{2}$	$3\frac{1}{2}x3$	8 x 6
$1\frac{1}{4}x\frac{3}{8}$	$3\frac{1}{2}x2\frac{1}{2}$	9 x 9
$1\frac{1}{2}x\frac{1}{2}$	$3\frac{1}{2}x2$	10 x10
$1\frac{1}{2}x1\frac{1}{4}$	4 x4	10 x 8
$1\frac{1}{2}x1$	4 x3 $\frac{1}{2}$	12 x12
$1\frac{1}{2}x\frac{3}{4}$	4 x3	.....

45° ELBOWS



$\frac{1}{4}$	$1\frac{1}{4}$	$3\frac{1}{2}$	7
$\frac{3}{8}$	$1\frac{1}{2}$	4	8
$\frac{1}{2}$	2	$4\frac{1}{2}$	9
$\frac{3}{4}$	$2\frac{1}{2}$	5	10
1	3	6	12

RIGHT AND LEFT ELBOWS

$\frac{1}{4}$	$\frac{1}{2}$	1	$1\frac{1}{2}$	$2\frac{1}{2}$
$\frac{3}{8}$	$\frac{3}{4}$	$1\frac{1}{4}$	2	3

60° AND 221/2° ELBOWS

$\frac{1}{2}$	$1\frac{1}{4}$	$2\frac{1}{2}$	5
$\frac{3}{4}$	$1\frac{1}{2}$	3	6
1	2	4	..

PITCHED ELBOWS

$\frac{1}{2}$	$1\frac{1}{2}x1$	$3x2\frac{1}{2}$
$\frac{3}{4}x\frac{1}{2}$	$1\frac{1}{2}x1\frac{1}{4}$	3
$\frac{3}{8}$	$1\frac{1}{2}$	$3\frac{1}{2}x3$
$1x\frac{3}{4}$	$2x1\frac{1}{2}$	$3\frac{1}{2}$
1	2	4
$1\frac{1}{4}x1$	$2\frac{1}{2}x2$	.....
$1\frac{1}{4}$	$2\frac{1}{2}$	.....

TEES



Reducing

Described thus:

1		$1\frac{1}{2}$
.....

Reducing on Run

Described thus:

1		$1\frac{1}{2}$
.....



$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{8}x\frac{1}{4}$	$\frac{3}{8}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}$
$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{8}x\frac{1}{4}$	$\frac{3}{8}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$

$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{8}x\frac{1}{4}$	$\frac{3}{8}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}$
$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{8}x\frac{1}{4}$	$\frac{3}{8}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$

$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{8}x\frac{1}{4}$	$\frac{3}{8}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}$
$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{8}x\frac{1}{4}$	$\frac{3}{8}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$

$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}x\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{8}x\frac{1}{4}$	$\frac{3}{8}x\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}x\frac{3}{4}$	$\frac{3}{4}$
$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}x\frac{1}{2}$	$\frac{3}{4}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}x\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}x\frac{1}{2}$	$\frac{1}{2}$

STANDARD CAST IRON FLAT BAND SCREWED FITTINGS

LIST OF SIZES—TEES

Continued

2 x2 x2	2 $\frac{1}{2}$ x2	x $\frac{1}{2}$	3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x3 $\frac{1}{2}$	4 x2 $\frac{1}{2}$ x4	5x3 x4	7x 5x 6
2 x2 x1 $\frac{1}{2}$	2 $\frac{1}{2}$ x1 $\frac{1}{2}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x3	4 x2 $\frac{1}{2}$ x3 $\frac{1}{2}$	5x3 x3 $\frac{1}{2}$	7x 5x 5
2 x2 x1 $\frac{1}{4}$	2 $\frac{1}{2}$ x1 $\frac{1}{2}$ x2		3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x2 $\frac{1}{2}$	4 x2 $\frac{1}{2}$ x3	5x3 x3	6x 6x 7
2 x2 x1	2 $\frac{1}{2}$ x1 $\frac{1}{2}$ x1 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x2	4 x2 $\frac{1}{2}$ x2 $\frac{1}{2}$	5x3 x2 $\frac{1}{2}$	5x 5x 7
2 x2 x $\frac{3}{4}$	2 $\frac{1}{2}$ x1 $\frac{1}{2}$ x1 $\frac{1}{4}$		3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x1 $\frac{1}{2}$	4 x2 $\frac{1}{2}$ x2	5x3 x2	8x 8x 8
2 x2 x $\frac{1}{2}$	2 $\frac{1}{2}$ x1 $\frac{1}{2}$ x1		3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x1 $\frac{1}{4}$	4 x2 $\frac{1}{2}$ x1 $\frac{1}{2}$	5x2 $\frac{1}{2}$ x5	8x 8x 7
2 x2 x $\frac{1}{4}$	2 $\frac{1}{2}$ x1 $\frac{1}{4}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x1	4 x2 $\frac{1}{2}$ x1 $\frac{1}{4}$	5x2 $\frac{1}{2}$ x4	8x 8x 6
2 x1 $\frac{1}{2}$ x2 $\frac{1}{2}$	2 $\frac{1}{2}$ x1 $\frac{1}{4}$ x2		3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x $\frac{3}{4}$	4 x2 $\frac{1}{2}$ x1	5x2 $\frac{1}{2}$ x3	8x 8x 5
2 x1 $\frac{1}{2}$ x1 $\frac{1}{2}$	2 $\frac{1}{2}$ x1 $\frac{1}{4}$ x1 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 x3 $\frac{1}{2}$	4 x2 x4	5x2 x5	8x 8x 4
2 x1 $\frac{1}{2}$ x1 $\frac{1}{4}$	2 $\frac{1}{2}$ x1 x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 x3	4 x2 x3	5x1 $\frac{1}{4}$ x5	8x 8x 3 $\frac{1}{2}$
2 x1 $\frac{1}{2}$ x1	2 $\frac{1}{2}$ x1 x1		3 $\frac{1}{2}$ x3 x2 $\frac{1}{2}$	4 x2 x2 $\frac{1}{2}$	4x4 x5	8x 8x 3
2 x1 $\frac{1}{2}$ x $\frac{3}{4}$	2 $\frac{1}{2}$ x $\frac{3}{4}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 x2	4 x2 x2	6x6 x6	8x 8x 2 $\frac{1}{2}$
2 x1 $\frac{1}{2}$ x $\frac{1}{2}$	2 $\frac{1}{2}$ x $\frac{1}{2}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 x1 $\frac{1}{2}$	4 x1 $\frac{1}{2}$ x4	6x6 x5	8x 8x 2
2 x1 $\frac{1}{4}$ x2	2 x2 x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 x1 $\frac{1}{4}$	4 x1 $\frac{1}{4}$ x4	6x6 x4 $\frac{1}{2}$	8x 8x 1 $\frac{1}{2}$
2 x1 $\frac{1}{4}$ x1 $\frac{1}{2}$	2 x1 $\frac{1}{2}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 x1	4 x1 x4	6x6 x4	8x 8x 1 $\frac{1}{4}$
2 x1 $\frac{1}{4}$ x1 $\frac{1}{4}$	2 x1 $\frac{1}{4}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x3 x $\frac{3}{4}$	3 $\frac{1}{2}$ x3 3 $\frac{1}{2}$ x4	6x6 x3 $\frac{1}{2}$	8x 7x 8
2 x1 $\frac{1}{4}$ x1	2 x1 x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x3 $\frac{1}{2}$	3 x3 x4	6x6 x3	8x 7x 6
2 x1 $\frac{1}{4}$ x $\frac{3}{4}$	2 x $\frac{3}{4}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x3	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4	6x6 x2 $\frac{1}{2}$	8x 7x 5
2 x1 x2	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2 $\frac{1}{2}$	2 x2 x4	6x6 x2	8x 7x 4
2 x1 x1 $\frac{1}{2}$	1 $\frac{1}{2}$ x1 $\frac{1}{4}$ x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x4 $\frac{1}{2}$	6x6 x1 $\frac{1}{2}$	8x 7x 3
2 x1 x1 $\frac{1}{4}$	1 $\frac{1}{2}$ x1 x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x2 x3 $\frac{1}{2}$	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x4	6x6 x1 $\frac{1}{4}$	8x 6x 8
2 x1 x1	3 x3 x3		3 $\frac{1}{2}$ x1 $\frac{1}{2}$ x3 $\frac{1}{2}$	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x3 $\frac{1}{2}$	6x6 x1	8x 6x 7
2 x1 x $\frac{3}{4}$	3 x3 x2 $\frac{1}{2}$		3 $\frac{1}{2}$ x1 $\frac{1}{4}$ x3 $\frac{1}{2}$	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x3	6x5 x6	8x 6x 6
2 x $\frac{3}{4}$ x2	3 x3 x2		3 $\frac{1}{2}$ x1 x3 $\frac{1}{2}$	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x2 $\frac{1}{2}$	6x5 x5	8x 5x 8
2 x $\frac{3}{4}$ x1 $\frac{1}{2}$	3 x3 x1 $\frac{1}{2}$		3 x3 x3 $\frac{1}{2}$	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x2	6x5 x4	8x 5x 5
2 x $\frac{1}{2}$ x1 $\frac{1}{2}$	3 x3 x1 $\frac{1}{4}$		4 x4 x4	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x2 $\frac{1}{2}$	6x5 x3 $\frac{1}{2}$	8x 4x 8
2 x $\frac{1}{4}$ x2	3 x3 x1		4 x4 x3 $\frac{1}{2}$	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x2 $\frac{1}{4}$	6x5 x3	8x 4x 6
2 x $\frac{1}{2}$ x2	3 x3 x $\frac{3}{4}$		4 x4 x3	4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x2	6x5 x2 $\frac{1}{2}$	6x 6x 8
1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 x3 x $\frac{1}{2}$		4 x4 x2 $\frac{1}{2}$	4 $\frac{1}{2}$ x4 x3	6x5 x1 $\frac{1}{2}$	9x 9x 9
1 $\frac{1}{2}$ x1 $\frac{1}{4}$ x2	3 x2 $\frac{1}{2}$ x3		4 x4 x2	5 x5 x5	6x4 x6	9x 9x 7
1 $\frac{1}{2}$ x1 x2	3 x2 $\frac{1}{2}$ x2 $\frac{1}{2}$		4 x4 x1 $\frac{1}{2}$	5 x5 x4 $\frac{1}{2}$	6x4 x4	9x 9x 6
1 $\frac{1}{2}$ x2 $\frac{3}{4}$ x2	3 x2 $\frac{1}{2}$ x2		4 x4 x1 $\frac{1}{4}$	5 x5 x4	6x4 x3	9x 9x 5
1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x2	3 x2 $\frac{1}{2}$ x1 $\frac{1}{2}$		4 x4 x1	5 x5 x3 $\frac{1}{2}$	6x3 x6	10x10x10
1 $\frac{1}{4}$ x1 x2	3 x2 $\frac{1}{2}$ x1 $\frac{1}{4}$		4 x4 x $\frac{3}{4}$	5 x5 x3	6x2 $\frac{1}{2}$ x6	10x10x 8
1 $\frac{1}{4}$ x $\frac{3}{4}$ x2	3 x2 $\frac{1}{2}$ x1		4 x3 $\frac{1}{2}$ x4	5 x5 x2 $\frac{1}{2}$	6x2 x6	10x10x 6
1 x1 x2	3 x2 $\frac{1}{2}$ x $\frac{3}{4}$		4 x3 $\frac{1}{2}$ x3 $\frac{1}{2}$	5 x5 x2	5x5 x6	10x10x 5
1 x $\frac{3}{4}$ x2	3 x2 x3		4 x3 $\frac{1}{2}$ x3	5 x5 x1 $\frac{1}{2}$	5x3 $\frac{1}{2}$ x6	10x10x 4
$\frac{3}{4}$ x $\frac{3}{4}$ x2	3 x2 x2 $\frac{1}{2}$		4 x3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 x5 x1 $\frac{1}{4}$	4x4 x6	10x10x 3
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 x2 x2		4 x3 $\frac{1}{2}$ x2	5 x5 x1	7x7 x7	10x10x 2
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2	3 x2 x1 $\frac{1}{2}$		4 x3 $\frac{1}{2}$ x1 $\frac{1}{2}$	5 x5 x $\frac{3}{4}$	7x7 x6	10x 8x 8
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x1 $\frac{1}{2}$	3 x2 x1 $\frac{1}{4}$		4 x3 $\frac{1}{2}$ x1 $\frac{1}{4}$	5 x4 x5	7x7 x5	8x 8x 10
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x1 $\frac{1}{4}$	3 x2 x1		4 x3 $\frac{1}{2}$ x1	5 x4 x4 $\frac{1}{2}$	7x7 x4	12x12x12
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x1	3 x1 $\frac{1}{2}$ x3		4 x3 x4	5 x4 x4	7x7 x3 $\frac{1}{2}$	12x12x10
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x $\frac{3}{4}$	3 x1 $\frac{1}{2}$ x2 $\frac{1}{2}$		4 x3 x3 $\frac{1}{2}$	5 x4 x3 $\frac{1}{2}$	7x7 x3	12x12x 8
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x $\frac{1}{2}$	3 x1 $\frac{1}{2}$ x2		4 x3 x3	5 x4 x3	7x7 x2 $\frac{1}{2}$	12x12x 6
2 $\frac{1}{2}$ x2 x2 $\frac{1}{2}$	3 x1 $\frac{1}{4}$ x3		4 x3 x2 $\frac{1}{2}$	5 x4 x2 $\frac{1}{2}$	7x7 x2	12x12x 5
2 $\frac{1}{2}$ x2 x2	3 x1 x3		4 x3 x2	5 x4 x2	7x6 x7	12x12x 4
2 $\frac{1}{2}$ x2 x1 $\frac{1}{2}$	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x3		4 x3 x1 $\frac{1}{2}$	5 x4 x1 $\frac{1}{2}$	7x6 x6	12x 8x10
2 $\frac{1}{2}$ x2 x1 $\frac{1}{4}$	2 $\frac{1}{2}$ x2 x3		4 x3 x1 $\frac{1}{4}$	5 x3 $\frac{1}{2}$ x3 $\frac{1}{2}$	7x6 x5	12x 8x 8
2 $\frac{1}{2}$ x2 x1	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x3		4 x3 x1	5 x3 x5	7x6 x4	.....
2 $\frac{1}{2}$ x2 x $\frac{3}{4}$	2 x2 x3		4 x3 x $\frac{3}{4}$	5 x3 x4 $\frac{1}{2}$	7x6 x3	.....

**STANDARD CAST IRON FLAT BAND
SCREWED FITTINGS
LIST OF SIZES**

CROSSES



$\frac{1}{2}x$ $\frac{1}{2}x$ $\frac{1}{2}x$ $\frac{1}{2}$
 $\frac{3}{4}x$ $\frac{3}{4}x$ $\frac{3}{4}x$ $\frac{3}{4}$
 $\frac{3}{4}x$ $\frac{3}{4}x$ $\frac{1}{2}x$ $\frac{1}{2}$
 $\frac{3}{4}x$ $\frac{1}{2}x$ $\frac{1}{2}x$ $\frac{1}{2}$

 1 $x1$ $x1$ $x1$
 1 $x1$ x $\frac{3}{4}x$ $\frac{3}{4}$
 1 $x1$ x $\frac{1}{2}x$ $\frac{1}{2}$
 1 x $\frac{3}{4}x$ $\frac{3}{4}x$ $\frac{3}{4}$
 1 $\frac{1}{4}x1$ $\frac{1}{4}x1$ $\frac{1}{4}x1$ $\frac{1}{4}$
 1 $\frac{1}{4}x1$ $\frac{1}{4}x1$ $x1$
 1 $\frac{1}{4}x1$ $\frac{1}{4}x$ $\frac{3}{4}x$ $\frac{3}{4}$
 1 $\frac{1}{4}x1$ $\frac{1}{4}x$ $\frac{1}{2}x$ $\frac{1}{2}$
 1 $\frac{1}{4}x1$ $x1$ $x1$
 1 $\frac{1}{4}x1$ x $\frac{3}{4}x$ $\frac{3}{4}$
 1 $\frac{1}{4}x$ $\frac{3}{4}x$ $\frac{3}{4}x$ $\frac{3}{4}$
 1 $\frac{1}{2}x1$ $\frac{1}{2}x1$ $\frac{1}{2}x1$ $\frac{1}{2}$
 1 $\frac{1}{2}x1$ $\frac{1}{2}x1$ $\frac{1}{4}x1$ $\frac{1}{4}$
 1 $\frac{1}{2}x1$ $\frac{1}{2}x1$ $x1$
 1 $\frac{1}{2}x1$ $\frac{1}{2}x$ $\frac{3}{4}x$ $\frac{3}{4}$
 1 $\frac{1}{2}x1$ $\frac{1}{2}x$ $\frac{1}{2}x$ $\frac{1}{2}$
 1 $\frac{1}{2}x1$ $\frac{1}{4}x1$ $\frac{1}{4}x1$ $\frac{1}{4}$
 1 $\frac{1}{2}x1$ $\frac{1}{4}x1$ $x1$
 1 $\frac{1}{2}x1$ $\frac{1}{4}x$ $\frac{3}{4}x$ $\frac{3}{4}$
 1 $\frac{1}{2}x1$ $x1$ x $\frac{3}{4}$
 1 $\frac{1}{2}x1$ $x1$ x $\frac{1}{2}$
 1 $\frac{1}{2}x1$ x $\frac{3}{4}x$ $\frac{3}{4}$
 2 $x2$ $x2$ $x2$
 2 $x2$ $x1$ $\frac{1}{2}x1$ $\frac{1}{2}$
 2 $x2$ $x1$ $\frac{1}{4}x1$ $\frac{1}{4}$
 2 $x2$ $x1$ $x1$
 2 $x2$ $x1$ x
 2 $x2$ x $\frac{3}{4}x$ $\frac{3}{4}$
 2 $x2$ x $\frac{1}{2}x$ $\frac{1}{2}$
 2 $x1$ $\frac{1}{2}x1$ $\frac{1}{2}x1$ $\frac{1}{2}$
 2 $x1$ $\frac{1}{2}x1$ $\frac{1}{4}x1$ $\frac{1}{4}$
 2 $x1$ $\frac{1}{2}x1$ $\frac{1}{4}x1$ $x1$
 2 $x1$ $\frac{1}{2}x1$ $x1$
 2 $x1$ $x1$ $\frac{1}{2}x1$
 2 $x1$ $x1$ x
 2 $x1$ x $\frac{3}{4}x$ $\frac{3}{4}$
 2 $x1$ x $\frac{1}{2}x$ $\frac{1}{2}$
 2 $x1$ $\frac{1}{4}x$ x $\frac{3}{4}$
 2 $x1$ $x1$ $x1$
 2 $x1$ $x2$ $x2$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x2$ $\frac{1}{2}x2$ $\frac{1}{2}$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x2$ $x2$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x1$ $\frac{1}{2}x1$ $\frac{1}{2}$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x1$ $\frac{1}{2}x1$ $\frac{1}{4}$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x1$ $x1$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x1$ $\frac{1}{4}x1$ $\frac{1}{4}$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x1$ $\frac{1}{4}x1$ $x1$
 2 $\frac{1}{2}x2$ $\frac{1}{2}x1$ $x1$ $\frac{1}{4}x$

Reducing



CROSSES Continued

3 ¹ /2x3 ¹ /2x2	x1 ¹ /2	5x	5x	3	x	3
3 ¹ /2x3 ¹ /2x1 ¹ /2	x1 ¹ /2x1 ¹ /2	5x	5x	2 ¹ /2x	2 ¹ /2	
3 ¹ /2x3 ¹ /2x1 ¹ /2x1	x1 ¹ /2x1 ¹ /4	5x	5x	2	x	2
3 ¹ /2x3 ¹ /2x1 ¹ /2x1	x1 ¹ /4x1 ¹ /4	5x	5x	2	x	1 ¹ /2
3 ¹ /2x3 ¹ /2x1 ¹ /4x1		5x	5x	1 ¹ /2x	1 ¹ /2	
3 ¹ /2x3 ¹ /2x1 ¹ /2x1	x1 ¹ /4x1 ¹ /4	5x	5x	1 ¹ /2x	1 ¹ /4	
3 ¹ /2x3 ¹ /2x1 ¹ /2x1	x1 ¹	5x	5x	1	x	1
3 ¹ /2x3 ¹ /2x2	x2 ¹ /2x2	5x	4x	2	x	2
3 ¹ /2x3 ¹ /2x2	x2	5x	4x	2	x	1 ¹ /2
3 ¹ /2x3 ¹ /2x2	x2	5x	4x	1 ¹ /2x	1 ¹ /2	
3 ¹ /2x3 ¹ /2x2	x2	5x	4x	1 ¹ /2x	1 ¹ /4	
3 ¹ /2x3 ¹ /2x1 ¹ /2	x1 ¹ /2x1 ¹ /2	5x	4x	1	x	1
3 ¹ /2x3 ¹ /2x1 ¹ /2	x1 ¹ /2x1 ¹ /4	5x	4x	1	x	1
3 ¹ /2x3 ¹ /2x1 ¹ /4	x1 ¹ /2x1	6x	6x	6	x	6
3 ¹ /2x3 ¹ /2x1 ¹ /4	x1 ¹ /4x1 ¹ /4	6x	6x	5	x	5
3 ¹ /2x3 ¹ /2x1 ¹ /4	x1 ¹ /4x1	6x	6x	4	x	4
3 ¹ /2x3 ¹ /2x1 ¹ /4	x1	6x	6x	3	x	3
4 x4	x4	6x	6x	2 ¹ /2x	2 ¹ /2	
4 x4	x3 ¹ /2x3 ¹ /2	6x	6x	2	x	2
4 x4	x3	6x	6x	2	x	1 ¹ /2
4 x4	x2 ¹ /2x2 ¹ /2	6x	6x	1 ¹ /2x	1 ¹ /2	
4 x4	x2	6x	5x	2	x	2
4 x4	x2	6x	5x	2	x	1 ¹ /2
4 x4	x1 ¹ /2x1 ¹ /2	6x	5x	1 ¹ /2x	1 ¹ /2	
4 x4	x1 ¹ /2x1 ¹ /4	7x	7x	7	x	7
4 x4	x1 ¹ /2x1	7x	7x	6	x	6
4 x4	x1 ¹ /4x1 ¹ /4	7x	7x	5	x	5
4 x4	x1 ¹ /4x1	8x	8x	8	x	8
4 x4	x1	8x	8x	7	x	7
4 x3 ¹ /2x2 ¹ /2x2	x2	8x	8x	6	x	6
4 x3 ¹ /2x2	x2	8x	8x	5	x	5
4 x3 ¹ /2x2	x1 ¹ /2	8x	8x	4	x	4
4 x3 ¹ /2x2	x1 ¹ /4	9x	9x	9	x	9
4 x3 ¹ /2x1 ¹ /2x1 ¹ /2	x2	10x10x10		x10		
4 x3 ¹ /2x1 ¹ /2x1 ¹ /4	x2	10x10x	8	x	8	
4 x3 ¹ /2x1 ¹ /4x1 ¹ /4	x2	10x10x	7	x	7	
4 x3 ¹ /2x1 ¹ /4x1	x1	12x12x12		x12		
4 ¹ /2x4 ¹ /2x4 ¹ /2x4 ¹ /2	x1	12x12x10		x10		
5 x5	x5	12x12x	8	x	8	

3 x4 x4
STANDARD



REDUCERS

REDUCERS			
	$5x2\frac{1}{2}$	$6x3$	$8x$
$\frac{1}{2}$	$5x2$	$6x2\frac{1}{2}$	$8x$
	$6x5$	$6x2$	$10x$
$\frac{1}{2}$	$6x4$	$7x6$	$10x$
	$6x3\frac{1}{2}$	$8x7$	$12x10$

5 x 5 **ECCENTRIC**

1 $\frac{1}{4}$ x 3 $\frac{3}{4}$	2 $\frac{1}{2}$ x 2	4	x 3	6 x 3
1 $\frac{1}{4}$ x 1	3 x 1 $\frac{1}{2}$	4	x 3 $\frac{1}{2}$	6 x 3 $\frac{1}{2}$
1 $\frac{1}{2}$ x 1	3 x 2	4 $\frac{1}{2}$ x 4		6 x 4
1 $\frac{1}{2}$ x 1 $\frac{1}{4}$	3 x 2 $\frac{1}{2}$	5	x 2	6 x 5
2 x 3 $\frac{3}{4}$	3 $\frac{1}{2}$ x 1 $\frac{1}{4}$	5	x 2 $\frac{1}{2}$	7 x 6
2 x 1	3 $\frac{1}{2}$ x 2	5	x 3	8 x 5
2 x 1 $\frac{1}{4}$	3 $\frac{1}{2}$ x 2 $\frac{1}{2}$	5	x 3 $\frac{1}{2}$	8 x 6
2 x 1 $\frac{3}{4}$	3 $\frac{3}{2}$ x 3	5	x 4	8 x 7
2 $\frac{1}{2}$ x 1 $\frac{1}{4}$	4 x 2	5	x 4 $\frac{1}{2}$	...
2 $\frac{1}{2}$ x 1 $\frac{3}{4}$	4 x 2 $\frac{1}{2}$	6	x 2 $\frac{1}{2}$	...

CAST IRON FITTINGS

LIST OF SIZES

CAST IRON BUSHINGS

LOCKNUTS

CAPS



$\frac{3}{8}x\frac{1}{8}$	$2\frac{1}{2}x1$	$4\frac{1}{2}x2\frac{1}{2}$	$7x4\frac{1}{2}$
$\frac{1}{2}x\frac{1}{4}$	$2\frac{1}{2}x1\frac{1}{4}$	$4\frac{1}{2}x3$	$7x5$
$\frac{3}{4}x\frac{1}{4}$	$2\frac{1}{2}x1\frac{1}{2}$	$4\frac{1}{2}x3\frac{1}{2}$	$7x6$
$\frac{3}{4}x\frac{3}{8}$	$3x\frac{1}{2}$	$4\frac{1}{2}x4$	$8x2$
$1x\frac{1}{4}$	$3x\frac{3}{4}$	$5x1$	$8x2\frac{1}{2}$
$1x\frac{3}{8}$	$3x1$	$5x2$	$8x3$
$1x\frac{1}{2}$	$3x1\frac{1}{4}$	$5x2\frac{1}{2}$	$8x4$
$1\frac{1}{4}x\frac{1}{4}$	$3x1\frac{1}{2}$	$5x3$	$8x5$
$1\frac{1}{4}x\frac{3}{8}$	$3x2$	$5x3\frac{1}{2}$	$8x6$
$1\frac{1}{4}x\frac{1}{2}$	$3x2\frac{1}{2}$	$5x4$	$8x7$
$1\frac{1}{4}x\frac{3}{4}$	$3\frac{1}{2}x1$	$4x4\frac{1}{2}$	$9x6$
$1\frac{1}{2}x\frac{1}{4}$	$3\frac{1}{2}x1\frac{1}{4}$	$6x1\frac{1}{2}$	$9x7$
$1\frac{1}{2}x\frac{3}{8}$	$3\frac{1}{2}x1\frac{1}{2}$	$6x2$	$9x8$
$1\frac{1}{2}x\frac{1}{2}$	$3\frac{1}{2}x2$	$6x2\frac{1}{2}$	$10x4$
$1\frac{1}{2}x\frac{3}{4}$	$3\frac{1}{2}x2\frac{1}{2}$	$6x3$	$10x5$
$1\frac{1}{2}x1$	$3\frac{1}{2}x3$	$6x3\frac{1}{2}$	$10x6$
$2x\frac{1}{4}$	$4x1$	$6x4$	$10x7$
$2x\frac{3}{8}$	$4x1\frac{1}{4}$	$6x4\frac{1}{2}$	$10x8$
$2x\frac{1}{2}$	$4x1\frac{1}{2}$	$6x5$	$10x9$
$2x\frac{3}{4}$	$4x2$	$7x2$	$12x6$
$2x1$	$4x2\frac{1}{2}$	$7x2\frac{1}{2}$	$12x8$
$2x1\frac{1}{4}$	$4x3$	$7x3$	$12x10$
$2\frac{1}{2}x\frac{1}{4}$	$4x3\frac{1}{2}$	$7x3\frac{1}{2}$	.....
$2\frac{1}{2}x\frac{3}{8}$	$4\frac{1}{2}x2$	$7x4$	.....

MALLEABLE BUSHINGS

$\frac{1}{4}x\frac{1}{8}$	$\frac{3}{4}x\frac{1}{2}$	$1\frac{1}{2}x1\frac{1}{4}$
$\frac{3}{8}x\frac{1}{4}$	$1x\frac{3}{4}$	$2x1\frac{1}{2}$
$\frac{1}{2}x\frac{3}{8}$	$1\frac{1}{4}x1$	$2\frac{1}{2}x2$

FACED BUSHINGS

$\frac{3}{8}x\frac{1}{4}$	$2x\frac{3}{4}$	$3\frac{1}{2}x2\frac{1}{2}$	$*6x4$
$\frac{1}{2}x\frac{3}{8}$	$2x1$	$3\frac{1}{2}x3$	$*6x5$
$\frac{3}{4}x\frac{3}{8}$	$2x1\frac{1}{4}$	$*4x2$	$7x5$
$\frac{3}{4}x\frac{1}{2}$	$2x1\frac{1}{2}$	$4x2\frac{1}{2}$	$7x6$
$1x\frac{1}{2}$	$2\frac{1}{2}x1\frac{1}{4}$	$4x3$	$8x6$
$1x\frac{3}{4}$	$2\frac{1}{2}x1\frac{1}{2}$	$4x3\frac{1}{2}$	$8x7$
$1\frac{1}{4}x\frac{3}{4}$	$2\frac{1}{2}x2$	$4\frac{1}{2}x4$	$10x8$
$1\frac{1}{4}x1$	$3x1\frac{1}{2}$	$*5x3$	$12x10$
$1\frac{1}{2}x\frac{3}{4}$	$3x2$	$5x4$	.....
$1\frac{1}{2}x1$	$3x2\frac{1}{2}$	$5x4\frac{1}{2}$	.....
$1\frac{1}{2}x1\frac{1}{4}$	$3\frac{1}{2}x2$	$6x3$	.....

*Cast iron. Others malleable iron.

Y BENDS

 $\frac{1}{2}$ to 12 inches.

PLUGS

 $\frac{1}{8}$ to 12 inches.2 $\frac{1}{2}$ to 12 inches. 4 to 12 inches.

LONG SWEEP ELBOWS

$1x1$	$2\frac{1}{2}$	$4\frac{1}{2}$	8
$1\frac{1}{4}$	3	5	9
$1\frac{1}{2}$	$3\frac{1}{2}$	6	10

No. 2 LONG SWEEP DOUBLE BRANCH ELBOWS

$1x1x1$	$1\frac{1}{2}x1\frac{1}{2}x2$	$3\frac{1}{2}x3\frac{1}{2}x3\frac{1}{2}$	$6x6x6$
$1\frac{1}{4}x1\frac{1}{4}x1\frac{1}{4}$	$2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$	$4x4x4$	$7x7x7$
$1x1x1\frac{1}{2}$	$2x2x2\frac{1}{2}$	$3x3x4$	$8x8x8$
$1\frac{1}{2}x1\frac{1}{2}x1\frac{1}{2}$	$3x3x3$	$2\frac{1}{2}x2\frac{1}{2}x4$	$9x9x9$
$1\frac{1}{4}x1\frac{1}{4}x1\frac{1}{4}$	$2x2x3$	$4\frac{1}{2}x4\frac{1}{2}x4\frac{1}{2}$	$10x10x10$
$2x2x2$	$2\frac{1}{2}x2\frac{1}{2}x3$	$5x5x5$	$12x12x12$

No. 3 LONG SWEEP TEES

$1x1$	$2\frac{1}{2}x2\frac{1}{2}x1\frac{1}{2}$	$4x4x3x$
$1\frac{1}{4}x1\frac{1}{4}x1\frac{1}{4}$	$2\frac{1}{2}x2\frac{1}{2}x1\frac{1}{4}$	$4x4x2\frac{1}{2}$
$1x1x1\frac{1}{2}$	$2\frac{1}{2}x2x2$	$4x4x2$
$1\frac{1}{2}x1\frac{1}{2}x1\frac{1}{2}$	$3x3x3$	$4x4x3x$
$1\frac{1}{4}x1\frac{1}{4}x1\frac{1}{4}$	$3x3x3$	$4\frac{1}{2}x4\frac{1}{2}x4\frac{1}{2}$
$2x2x2$	$3x3x3$	$5x5x3$
$2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$	$3x3x3$	$5x5x3$
$2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$	$4x4x4$	$5x5x2$
$2x2x2$	$3x2\frac{1}{2}x2$	$6x6x6$
$2x2x2$	$3\frac{1}{2}x3\frac{1}{2}x3\frac{1}{2}$	$6x6x2$
$2x2x2$	$3\frac{1}{2}x3\frac{1}{2}x2$	$7x7x7$
$2x2x2$	$3\frac{1}{2}x3\frac{1}{2}x1\frac{1}{2}$	$8x8x8$
$2x1\frac{1}{2}x1\frac{1}{2}x1\frac{1}{2}$	$3\frac{1}{2}x3\frac{1}{2}x1\frac{1}{2}$	$9x9x9$
$2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$	$3\frac{1}{2}x3x2$	$10x10x10$
$2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$	$4x4x4$	$12x12x12$

No. 4 LONG SWEEP CROSSES

$1x1x1x1$	$3\frac{1}{2}x3\frac{1}{2}x3\frac{1}{2}x3\frac{1}{2}$	$7x7x7x7$
$1\frac{1}{4}x1\frac{1}{4}x1\frac{1}{4}x1\frac{1}{4}$	$4x4x4x4$	$8x8x8x8$
$1\frac{1}{2}x1\frac{1}{2}x1\frac{1}{2}x1\frac{1}{2}$	$4x4x2\frac{1}{2}x2\frac{1}{2}$	$8x8x6x6$
$2x2x2x2$	$5x5x5x5$	$8x8x4x4$
$2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$	$5x5x4x4$	$9x9x9x9$
$2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$	$5x5x3x3$	$10x10x10x10$
$3x3x3x3$	$6x6x6x6$	$12x12x12x12$
$3x3x1\frac{1}{2}x1\frac{1}{2}$	$6x6x4x4$	.....

No. 12 LONG SWEEP STRAIGHT BACK TEES

$1x1$	$3x3x3$	$3\frac{1}{2}x3$	$4x4x6$
$1\frac{1}{4}x1\frac{1}{4}x1\frac{1}{4}$	$3x3x1\frac{1}{2}$	$3x3x4$	$7x7x7$
$1\frac{1}{2}x1\frac{1}{2}x1\frac{1}{2}$	$3x3x1$	$4\frac{1}{2}x4\frac{1}{2}x4\frac{1}{2}$	$8x8x8$
$2x2x2$	$3x2\frac{1}{2}x2\frac{1}{2}$	$5x5x5$	$8x8x6$
$2x2x1$	$3x2\frac{1}{2}x3$	$5x5x3$	$8x8x4$
$2x1\frac{1}{2}x1\frac{1}{2}$	$2\frac{1}{2}x2\frac{1}{2}x3$	$4x4x5$	$9x9x9$
$2x1\frac{1}{2}x1$	$3\frac{1}{2}x3\frac{1}{2}x3\frac{1}{2}$	$4x3\frac{1}{2}x5$	$10x10x10$
$2\frac{1}{2}x2\frac{1}{2}x2$	$3\frac{1}{2}x3x2$	$6x6x6$	$12x12x12$
$2\frac{1}{2}x2\frac{1}{2}x2$	$4x4x4$	$6x6x4$	.....
$2\frac{1}{2}x2\frac{1}{2}x1\frac{1}{2}$	$4x4x2\frac{1}{2}$	$5x4x6$	.....

STANDARD CAST IRON FLAT BAND SCREWED FITTINGS

STRAIGHT ELBOWS



Fig. 8473A

Size In.	PRICE, EACH Black Galv.	Size In.	PRICE, EACH Black Galv.
$\frac{1}{4}$	.05	.10	3 $\frac{1}{2}$ 1.05
$\frac{3}{8}$	.05	.10	4 1.20
$\frac{1}{2}$	.06	.12	4 $\frac{1}{2}$ 1.75
$\frac{5}{8}$	.08	.16	5 2.00
1	.10 $\frac{1}{2}$	.21	6 2.75
$1\frac{1}{4}$	.16	.32	7 4.70
$1\frac{1}{2}$	.20	.40	8 6.75
2	.28	.56	9 9.00
$2\frac{1}{2}$	.50	1.00	10 13.50
3	.75	1.50	12 20.00

45° ELBOWS



Fig. 8473D

Size In.	PRICE, EACH Black Galv.	Size In.	PRICE, EACH Black Galv.
$\frac{1}{4}$	.06	.12	3 $\frac{1}{2}$ 1.25
$\frac{3}{8}$	.06	.12	4 1.45
$\frac{1}{2}$	.07	.14	4 $\frac{1}{2}$ 2.20
$\frac{5}{8}$	.10	.20	5 2.50
1	.12	.24	6 3.45
$1\frac{1}{4}$	.19	.38	7 5.90
$1\frac{1}{2}$	.24	.48	8 8.50
2	.34	.68	9 11.25
$2\frac{1}{2}$	.60	1.20	10 17.00
3	.90	1.80	12 25.00

REDUCING ELBOWS



Fig. 8473B

		3 $\frac{1}{2}$	1.20	2.40
$\frac{1}{4}$	...	...	1.40	2.80
$\frac{3}{8}$	.06	4	2.00	4.00
$\frac{1}{2}$	.07	4 $\frac{1}{2}$	2.30	4.60
$\frac{5}{8}$	.09	5	3.15	6.30
1	.12	6	5.40	10.80
$1\frac{1}{4}$	.18	7	7.75	15.50
$1\frac{1}{2}$	.23	8	10.50	21.00
2	.32	9	15.50	31.00
$2\frac{1}{2}$	.60	10	23.00	46.00
3	.85	12		

60° AND 22 $\frac{1}{2}$ ° ELBOWS



Fig. 8473E

Size In.	PRICE, EACH 60° 22 $\frac{1}{2}$ °	Size In.	PRICE, EACH 60° 22 $\frac{1}{2}$ °
$\frac{1}{2}$	.25	.25	2 $\frac{1}{2}$ 1.10
$\frac{3}{4}$	.30	.30	3 1.65
1	.35	.35	4 2.75
$1\frac{1}{4}$	.45	.45	5 5.00
$1\frac{1}{2}$	.50	.50	6 7.00
2	.60	.60	...

MEDIUM REDUCING DOUBLE BRANCH ELBOWS



Fig. 8473F

Size In.	Price Each	Size In.	Price Each
$\frac{3}{4}$	.10	1 $\frac{1}{2}$	.25
1	.13	2	.35
$1\frac{1}{4}$	.20	2 $\frac{1}{2}$	.65

RIGHT AND LEFT ELBOWS

Size In.	Price Each	Size In.	Price Each
$\frac{1}{4}$	.06	1 $\frac{1}{4}$	.18
$\frac{3}{8}$	.06	1 $\frac{1}{2}$	.23
$\frac{1}{2}$	.07	2	.32
$\frac{5}{8}$	.09	2 $\frac{1}{2}$	.60
1	.12	3	.85

Fig. 8473C

In describing medium reducing, double branch elbows, the run is first named, then the outlet.

Size, In.	Price Each	Size, In.	Price Each
1 x 1	.75	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 3	4.25
1 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 1 $\frac{1}{2}$	1.05	3 x 3	6.50
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 2	1.50	4 x 4	12.00
2 x 2	2.25	5 x 6	16.50

STANDARD CAST IRON FLAT BAND SCREWED FITTINGS

STRAIGHT TEES



Fig. 8475A

Size In.	PRICE, EACH Black Galv.	Size In.	PRICE, EACH Black Galv.
1/4	.08 .16	3 1/2	1.50 3.00
3/8	.08 .16	4	1.75 3.50
1/2	.09 .18	4 1/2	2.55 5.10
5/8	.12 .24	5	3.00 6.00
1	.15 .30	6	4.00 8.00
1 1/4	.23 .46	7	6.80 13.60
1 1/2	.29 .58	8	9.75 19.50
2	.41 .82	9	13.00 26.00
2 1/2	.73 1.46	10	19.50 39.00
3	1.10 2.20	12	29.00 58.00

REDUCING TEES



Fig. 8475B



Fig. 8475C

Tees reducing on the run are described thus:

1
1 1/2 ————— 1 1/4
and are read 1 1/2x1.
1 1/4x1.

Tees reducing on the outlet are described thus:

1
1 1/2 ————— 1 1/2
and read 1 1/2x1.

Size In.	PRICE, EACH Black Galv.	Size In.	PRICE, EACH Black Galv.
3/8	.09 .18	4	2.00 4.00
1/2	.10 .20	4 1/2	2.95 5.90
5/8	.14 .28	5	3.50 7.00
1	.17 .34	6	4.60 9.20
1 1/4	.27 .54	7	7.80 15.60
1 1/2	.33 .66	8	11.25 22.50
2	.47 .94	9	15.00 30.00
2 1/2	.83 1.66	10	22.50 45.00
3	1.25 2.50	12	33.50 67.00
3 1/2	1.75 3.50	...	...

CROSSES

Straight



Fig. 8475D

Reducing



Fig. 8475E

STRAIGHT CROSSES

Size In.	PRICE, EACH Black Galv.	Size In.	PRICE, EACH Black Galv.
1/2	.16 .32	4	3.15 6.30
3/4	.22 .44	4 1/2	4.60 9.20
1	.27 .54	5	5.50 11.00
1 1/4	.42 .84	6	7.25 14.50
1 1/2	.53 1.06	7	12.25 24.50
2	.75 1.50	8	17.50 35.00
2 1/2	1.30 2.60	9	23.50 47.00
3	2.00 4.00	10	35.00 70.00
3 1/2	2.70 5.40	12	52.50 105.00

REDUCING CROSSES

1/2	.18 .36	4	3.50 7.00
3/4	.25 .50	4 1/2	5.10 10.20
1	.30 .60	5	6.00 12.00
1 1/4	.46 .92	6	8.00 16.00
1 1/2	.60 1.20	7	13.50 27.00
2	.83 1.66	8	19.25 38.50
2 1/2	1.45 2.90	9	26.00 52.00
3	2.20 4.40	10	38.50 77.00
3 1/2	3.00 6.00	12	58.00 116.00

Y BRANCHES



Fig. 8475F

1/2	.20 .40	4	4.00 8.00
3/4	.28 .56	4 1/2	5.90 11.80
1	.34 .68	5	7.00 14.00
1 1/4	.54 1.08	6	9.20 18.40
1 1/2	.66 1.32	7	15.60 31.20
2	.94 1.88	8	22.50 45.00
2 1/2	1.66 3.32	10	45.00 90.00
3	2.50 5.00	12	67.00 134.00
3 1/2	3.50 7.00	...	...

STANDARD CAST IRON FLAT BAND SCREWED FITTINGS

CLOSE PATTERN RETURN BENDS



Fig. 8481A

WIDE PATTERN RETURN BENDS



Fig. 8481C

Close pattern return bends will not make up parallel coils as the distance center to center of two adjacent bends is greater than the center to center of openings of a single bend.

Size In.	C. to C. In.	PRICE, EACH		
		R. H. Blk.	R. H. Galv.	R. and L. Blk.
1/2	1 1/4	.18	.36	.21
3/4	1 1/2	.20	.40	.23
1	1 3/4	.22	.44	.26
1 1/4	2 1/4	.28	.56	.33
1 1/2	2 1/2	.40	.80	.46
2	3 1/4	.57	1.14	.66
2 1/2	3 5/8	1.20	2.40	1.40
3	4 3/8	1.70	3.40	1.95
4	6	5.00	10.00	5.25

CLOSE PATTERN PITCHED RETURN BENDS

Size In.	C. to C. In.	PRICE, EACH		
		R. H. Blk.	R. and L. Blk.	
3/4	1 1/2	.23	.23	
1	1 3/4	.26	.26	
1 1/4	2 1/4	.33	.33	

Right and left hand return bends are made to order.

OPEN PATTERN RETURN BENDS



Fig. 8481B

Size In.	C. to C. In.	PRICE, EACH				
		R. H. Blk.	R. H. Galv.	R. and L. Blk.	L. H. Blk.	
3/4	1 7/8	.26	.52	.30	.30	
1	2 1/2	.30	.60	.35	.35	
1 1/4	3	.40	.80	.46	.46	
1 1/2	3 1/2	.55	1.10	.64	.64	
2	4 1/2	.80	1.60	.92	.92	
2 1/2	5 3/8	1.35	2.70	1.55	1.55	
3	6 1/2	2.20	4.40	2.50	2.50	
4	7	6.50	10.00	7.00	7.00	

Size Inches	C. to C. In.	PRICE, EACH	
		Black	Galv.
1	3	.45	.80
1	4	.50	.90
1	6	.75	1.30
1	8	1.00	1.60
1	9	1.25	1.85
1 1/4	4	1.00	1.75
1 1/4	6	1.25	2.00
1 1/2	4 7/8	1.30	2.30
1 1/2	6	1.60	2.60
1 1/2	8	2.00	3.25
1 1/2	12	1.75	3.00
2	7	3.00	4.50
2	8	3.50	5.00
2	12	4.50	7.00
4	11	7.50	11.00

CAPS



Fig. 8481D

Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black		
		Galv.			
2 1/2	.40	.80	6	1.55	3.10
3	.54	1.08	7	2.50	5.00
3 1/2	.75	1.50	8	2.85	5.70
4	.87	1.74	9	4.75	9.50
4 1/2	1.05	2.10	10	5.50	11.00
5	1.20	2.40	12	7.00	14.00

LOCKNUTS



Fig. 8481E

Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black		
		Galv.			
2	.25	.50	6	1.30	2.60
2 1/2	.27	.54	7	1.70	3.40
3	.34	.68	8	2.35	4.70
3 1/2	.47	.94	9	2.70	5.40
4	.64	1.28	10	3.00	6.00
4 1/2	.85	1.70	12	4.00	8.00
5	.90	1.80	..	..	..

STANDARD CAST IRON FLAT BAND SCREWED FITTINGS

REDUCERS



Fig. 8480A



Fig. 8480B

PLUGS



Fig. 8480E



Fig. 8480F

BLACK STANDARD REDUCERS

Size In.	Price Each	Size In.	Price Each	Size In.	Price Each
3/8	.06	2 1/2	.60	7	5.35
1/2	.09	3	.80	8	6.75
3/4	.10	3 1/2	1.00	9	8.35
1	.16	4	1.35	10	10.00
1 1/4	.22	4 1/2	1.85	12	15.00
1 1/2	.28	5	2.00	..	....
2	.43	6	2.70	..	....

GALVANIZED STANDARD REDUCERS

4 1/2	3.70	7	10.70	10	20.00
5	4.00	8	13.50	12	30.00
6	5.40	9	16.70	..	....

BLACK ECCENTRIC REDUCERS

1, 1 1/4	.55	3 1/2	3.00	7	9.00
1 1/2	.72	4	4.00	8	11.00
2	1.00	4 1/2	5.00	9	12.50
2 1/2	1.50	5	6.00	10	14.00
3	2.40	6	8.00	12	18.00

BUSHINGS

Reducing two or more sizes up to 2 1/2 inches inclusive. Reducing one or more sizes, 3 inches and up.



Fig. 8480C

Size In.	PRICE, EACH Black	Size In.	PRICE, EACH Black
3/8, 1/2	.04	4	.50
3/4	.05	4 1/2	.75
1	.06	5	.93
1 1/4	.07	6	1.25
1 1/2	.09	7	1.87
2	.14	8	2.75
2 1/2	.21	9	3.25
3	.30	10	3.75
3 1/2	.40	12	5.00

RADIATOR PLUGS

Size In.	Price Each
1 1/4	.10
1 1/2	.14
2	.20



Fig. 8480D

SPECIAL PLUGS

Size In.	PRICE, EACH Left Hand	Tapped for Air Cock	Size In.	PRICE, EACH Left Hand	Tapped for Air Cock
1/2	.04	..	1 1/4	.09	.20
3/4	.06	.12	1 1/2	.11	.25
1	.08	.15	2	.15	.30

RADIATOR BUSHINGS

Standard



Fig. 8480G



Fig. 8480H

Size In.	PRICE, EACH Std.	Size In.	PRICE, EACH Std.	Size In.	PRICE, EACH Ecc.
1 1/4 x 1/2	..	2x 1/2	..	2x 1/2	.27
1 1/4 x 3/4	..	2x 3/4	.21	2x 3/4	.27
1 1/2 x 1/2	.14	.25	2x1	.21	.27
1 1/2 x 3/4	.14	.25	2x1 1/4	.21	.27
1 1/2 x 1	.14	.25	2x1 1/2	.21	..
1 1/2 x 1 1/4	.14	..	2x1 1/4	..	..

FITTINGS

MALLEABLE IRON PIPE SADDLES
SINGLE STRAP DOUBLE STRAP

FLANGE UNIONS

STANDARD



Fig. 6854A

EXTRA HEAVY



Fig. 6854B



Fig. 6854C



Fig. 6854D

STANDARD FLANGE UNIONS

For Working Pressures up to 125 Pounds

Size inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2
Diameter of Flanges inches	2 15/16	3 15/16	3 9/16	4	4 5/8	5 1/2	6 1/8	6 3/4	7 1/2	8 1/8	8 3/4
No. of Bolts in Each	3	3	3	4	4	4	4	4	4	5	5
Price, Black. each	.40	.46	.52	.64	.78	1.00	1.25	1.50	1.80	2.10	2.70
" Galvanized. "	.80	.92	1.04	1.28	1.56	2.00	2.50	3.00	3.60	4.20	5.40
Size inches	5	6	7	8	9	10	12	14	15	16	....
Diameter of Flanges inches	9 5/8	11	12 1/4	13 1/2	14 3/8	15 1/4	18	22	22	23	....
No. of Bolts in Each	5	6	7	7	8	10	12	14	14	16	....
Price, Black. each	3.15	3.95	5.50	7.00	10.00	11.50	16.00	28.00	35.00	60.00	....
" Galvanized. "	6.30	7.90	11.00	14.00	20.00	23.00	32.00	56.00	70.00	120.00	....

EXTRA HEAVY FLANGE UNIONS

For Working Pressures up to 250 Pounds

Size inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Diameter of Flanges inches	3	3 1/4	3 5/8	4 1/6	4 5/8	5 3/8	6	6 3/4
No. of Bolts in Each	3	4	4	4	4	5	5	6
Price. each	.60	.70	.80	1.00	1.15	1.50	1.90	2.25
Size inches	3 1/2	4	4 1/2	5	6	7	8	....
Diameter of Flanges inches	7 7/16	8	8 3/4	9 3/8	10 3/4	12 1/8	13 3/8	....
No. of Bolts in Each	6	7	8	8	9	10	10	....
Price. each	2.70	3.15	4.00	4.75	6.00	8.25	10.50	....

MALLEABLE IRON PIPE SADDLES, SINGLE STRAP

Size of Pipe inches	2	2 1/2	3	3 1/2	4	4 1/2	5
Tapped for Pipe inches	1 to 1 1/2	1 to 2	1 to 2	1 to 2	1 to 2	1 to 2	1 to 2
Price each	.75	1.00	1.00	1.00	1.00	1.00	1.00

MALLEABLE IRON PIPE SADDLES, DOUBLE STRAP

Size of Pipe inches	2	2 1/2	3	3 1/2	4	4 1/2	5
Tapped for Pipe inches	1/2 to 1 1/2	3/4 to 1 1/2	3/4 to 2	3/4 to 2	3/4 to 2	3/4 to 2	3/4 to 2
Price each	1.00	1.25	1.25	1.40	1.50	2.50	2.75
Size of Pipe inches	5	6	6	7	8	9	10
Tapped for Pipe inches	2 1/2 and 3	3/4 to 2	2 1/2 to 4	1 to 4	1 to 4	1 1/2 to 4	1 1/2 to 4
Price each	2.75	2.75	5.75	6.50	6.50	8.50	10.00
Size of Pipe inches	10	12	12	15	16	....	....
Tapped for Pipe inches	4 1/2 to 6	1 1/2 to 4	4 1/2 to 6	3 to 6	3 to 6	....	....
Price each	10.00	14.00	14.00	22.00	25.00	....	....

These flanges being made to order, it is always necessary to give the circle they are to fit.

Diameter Flange 6 7 8 9 11 12 13 14 17 18 20
Pipe inches 1½ 2 2½ 3 4 5 6 7 8 9 10 12

CIRCULAR

All floor flanges are drilled for screw. Galvanized take double the list.

Size inches 3/8x3 1/2x3 1/2 3/4x3 1/2 1 1/4x4 1 1/2x4 1/2 2x5 1/2 2x5 1/2 2x6
Price each .10 .15 .15 .16 .22 .35 .55

FLOOR, NOT FACED, COUNTERSUNK SCREW HOLE

3 x 6½	.50	5 x 11	1.75	8x14	3.25	.....	.....
2½x8	.90	5 x 10	1.50	8x13½	2.80	16x23½	18.00
2½x7	.62	4½x11	1.75	8x13	2.80	15x22½	14.00
2½x6½	.50	4½x10	1.50	7x15	4.00	14x21	9.50
2½x6	.42	4½x 9	1.15	7x14	3.25	14x21	8.50
2 x 8	.90	4 x 10	1.50	7x13	2.80	14x20	8.50
2 x 7	.62	4 x 9	1.15	7x12½	2.20	12x19	7.50
2 x 6	.42	4 x 8½	1.00	7x12	2.20	12x18	7.00
1½x6	.40	3½x10	1.50	6x14	3.25	10x19	7.50
1½x5	.30	3½x 9	1.15	6x13	2.80	10x18	7.00
1½x4½	.25	3½x 8	1.15	6x12	2.20	9x17	5.75
1 x 6	.42	3 x 9	1.15	6x11	1.75	9x16	5.00
1 x 5	.30	3 x 8	.90	6x10	1.50	9x15	4.00
¾x5	.30	3 x 7	.75	5x12½	2.20	8x16	5.00
¾x4	.22	3 x 7	.62	5x12	2.20	8x15	4.00
Imches	Price	Size	Imches	Base	Imches	Size	Price
Imches	Price	Size	Imches	Base	Imches	Size	Price

COMMON, NOT FACED



CIRCULAR



FLOOR

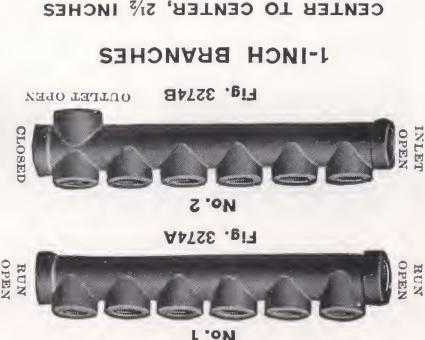
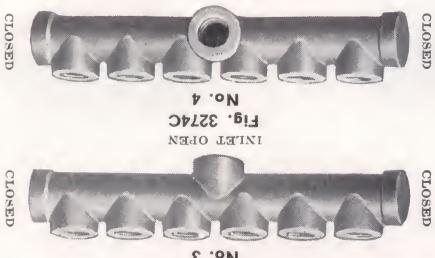


COMMON

FLANGES

CAST IRON FITTINGS

CAST IRON BRANCH TEES



1½-INCH BRANCHES

CENTRE TO CENTER, 2½ INCHES

CENTRE TO CENTER, 3½ INCHES

2-INCH BRANCHES

1¼-INCH BRANCHES

No.	Size of Run, Inches	Price, Each
2	4.10	4.50
4	6.40	7.00
5	7.65	8.50
6	8.80	9.75
7	10.60	11.75
8	11.50	12.75
9	12.25	13.50
10	13.50	15.00
11	14.25	15.75
12	15.00	16.50
13	16.00	17.50
14	17.00	18.50
15	18.00	19.50
16	19.00	20.50

No.	Size of Run, Inches	Price, Each
2	4.10	4.50
4	6.40	7.00
5	7.65	8.50
6	8.80	9.75
7	10.60	11.75
8	11.50	12.75
9	12.25	13.50
10	13.50	15.00
11	14.25	15.75
12	15.00	16.50
13	16.00	17.50
14	17.00	18.50
15	18.00	19.50
16	19.00	20.50

No.	Size of Run, Inches	Price, Each
2	4.10	4.50
4	6.40	7.00
5	7.65	8.50
6	8.80	9.75
7	10.60	11.75
8	11.50	12.75
9	12.25	13.50
10	13.50	15.00
11	14.25	15.75
12	15.00	16.50
13	16.00	17.50
14	17.00	18.50
15	18.00	19.50
16	19.00	20.50

No.	Size of Run, Inches	Price, Each
2	4.10	4.50
4	6.40	7.00
5	7.65	8.50
6	8.80	9.75
7	10.60	11.75
8	11.50	12.75
9	12.25	13.50
10	13.50	15.00
11	14.25	15.75
12	15.00	16.50
13	16.00	17.50
14	17.00	18.50
15	18.00	19.50
16	19.00	20.50

CENTRE TO CENTRE, 3 INCHES

1¼-INCH BRANCHES

No.	Size of Run, Inches	Price, Each
2	4.10	4.50
4	6.40	7.00
5	7.65	8.50
6	8.80	9.75
7	10.60	11.75
8	11.50	12.75
9	12.25	13.50
10	13.50	15.00
11	14.25	15.75
12	15.00	16.50
13	16.00	17.50
14	17.00	18.50
15	18.00	19.50
16	19.00	20.50

No.	Size of Run, Inches	Price, Each
2	4.10	4.50
4	6.40	7.00
5	7.65	8.50
6	8.80	9.75
7	10.60	11.75
8	11.50	12.75
9	12.25	13.50
10	13.50	15.00
11	14.25	15.75
12	15.00	16.50
13	16.00	17.50
14	17.00	18.50
15	18.00	19.50
16	19.00	20.50

PIPE HANGERS AND BEAM CLAMPS						
EXPANSION PIPE HANGERS						
Size, In.	Top Pipe Price, Each	Size, In.	Bottom Pipe Price, Each	Size, In.	Plate Price, Each	Size, In.
1 1/4	.17	1 1/4	.17	1 1/4	.17	1 1/4
1 1/2	.18	1 1/2	.18	1 1/2	.18	1 1/2
2 1/2	.25	2 1/2	.25	2 1/2	.25	2 1/2
3 1/2	.29	3 1/2	.29	3 1/2	.29	3 1/2
4 1/2	.36	4 1/2	.36	4 1/2	.36	4 1/2
5 1/2	.44	5 1/2	.44	5 1/2	.44	5 1/2
6 1/2	.63	6 1/2	.63	6 1/2	.63	6 1/2
7 1/2	.90	7 1/2	.90	7 1/2	.90	7 1/2
8 1/2	1.12	8 1/2	1.12	8 1/2	1.12	8 1/2
9 1/2	1.35	9 1/2	1.35	9 1/2	1.35	9 1/2
10 1/2	1.63	10 1/2	1.63	10 1/2	1.63	10 1/2
11 1/2	2.00	11 1/2	2.00	11 1/2	2.00	11 1/2
12 1/2	2.40	12 1/2	2.40	12 1/2	2.40	12 1/2
13 1/2	2.80	13 1/2	2.80	13 1/2	2.80	13 1/2
14 1/2	3.20	14 1/2	3.20	14 1/2	3.20	14 1/2
15 1/2	3.60	15 1/2	3.60	15 1/2	3.60	15 1/2
16 1/2	4.00	16 1/2	4.00	16 1/2	4.00	16 1/2
17 1/2	4.40	17 1/2	4.40	17 1/2	4.40	17 1/2
18 1/2	4.80	18 1/2	4.80	18 1/2	4.80	18 1/2
19 1/2	5.20	19 1/2	5.20	19 1/2	5.20	19 1/2
20 1/2	5.60	20 1/2	5.60	20 1/2	5.60	20 1/2
21 1/2	6.00	21 1/2	6.00	21 1/2	6.00	21 1/2
22 1/2	6.40	22 1/2	6.40	22 1/2	6.40	22 1/2
23 1/2	6.80	23 1/2	6.80	23 1/2	6.80	23 1/2
24 1/2	7.20	24 1/2	7.20	24 1/2	7.20	24 1/2
25 1/2	7.60	25 1/2	7.60	25 1/2	7.60	25 1/2
26 1/2	8.00	26 1/2	8.00	26 1/2	8.00	26 1/2
27 1/2	8.40	27 1/2	8.40	27 1/2	8.40	27 1/2
28 1/2	8.80	28 1/2	8.80	28 1/2	8.80	28 1/2
29 1/2	9.20	29 1/2	9.20	29 1/2	9.20	29 1/2
30 1/2	9.60	30 1/2	9.60	30 1/2	9.60	30 1/2
31 1/2	10.00	31 1/2	10.00	31 1/2	10.00	31 1/2
32 1/2	10.40	32 1/2	10.40	32 1/2	10.40	32 1/2
33 1/2	10.80	33 1/2	10.80	33 1/2	10.80	33 1/2
34 1/2	11.20	34 1/2	11.20	34 1/2	11.20	34 1/2
35 1/2	11.60	35 1/2	11.60	35 1/2	11.60	35 1/2
36 1/2	12.00	36 1/2	12.00	36 1/2	12.00	36 1/2
37 1/2	12.40	37 1/2	12.40	37 1/2	12.40	37 1/2
38 1/2	12.80	38 1/2	12.80	38 1/2	12.80	38 1/2
39 1/2	13.20	39 1/2	13.20	39 1/2	13.20	39 1/2
40 1/2	13.60	40 1/2	13.60	40 1/2	13.60	40 1/2
41 1/2	14.00	41 1/2	14.00	41 1/2	14.00	41 1/2
42 1/2	14.40	42 1/2	14.40	42 1/2	14.40	42 1/2
43 1/2	14.80	43 1/2	14.80	43 1/2	14.80	43 1/2
44 1/2	15.20	44 1/2	15.20	44 1/2	15.20	44 1/2
45 1/2	15.60	45 1/2	15.60	45 1/2	15.60	45 1/2
46 1/2	16.00	46 1/2	16.00	46 1/2	16.00	46 1/2
47 1/2	16.40	47 1/2	16.40	47 1/2	16.40	47 1/2
48 1/2	16.80	48 1/2	16.80	48 1/2	16.80	48 1/2
49 1/2	17.20	49 1/2	17.20	49 1/2	17.20	49 1/2
50 1/2	17.60	50 1/2	17.60	50 1/2	17.60	50 1/2
51 1/2	18.00	51 1/2	18.00	51 1/2	18.00	51 1/2
52 1/2	18.40	52 1/2	18.40	52 1/2	18.40	52 1/2
53 1/2	18.80	53 1/2	18.80	53 1/2	18.80	53 1/2
54 1/2	19.20	54 1/2	19.20	54 1/2	19.20	54 1/2
55 1/2	19.60	55 1/2	19.60	55 1/2	19.60	55 1/2
56 1/2	20.00	56 1/2	20.00	56 1/2	20.00	56 1/2
57 1/2	20.40	57 1/2	20.40	57 1/2	20.40	57 1/2
58 1/2	20.80	58 1/2	20.80	58 1/2	20.80	58 1/2
59 1/2	21.20	59 1/2	21.20	59 1/2	21.20	59 1/2
60 1/2	21.60	60 1/2	21.60	60 1/2	21.60	60 1/2
61 1/2	22.00	61 1/2	22.00	61 1/2	22.00	61 1/2
62 1/2	22.40	62 1/2	22.40	62 1/2	22.40	62 1/2
63 1/2	22.80	63 1/2	22.80	63 1/2	22.80	63 1/2
64 1/2	23.20	64 1/2	23.20	64 1/2	23.20	64 1/2
65 1/2	23.60	65 1/2	23.60	65 1/2	23.60	65 1/2
66 1/2	24.00	66 1/2	24.00	66 1/2	24.00	66 1/2
67 1/2	24.40	67 1/2	24.40	67 1/2	24.40	67 1/2
68 1/2	24.80	68 1/2	24.80	68 1/2	24.80	68 1/2
69 1/2	25.20	69 1/2	25.20	69 1/2	25.20	69 1/2
70 1/2	25.60	70 1/2	25.60	70 1/2	25.60	70 1/2
71 1/2	26.00	71 1/2	26.00	71 1/2	26.00	71 1/2
72 1/2	26.40	72 1/2	26.40	72 1/2	26.40	72 1/2
73 1/2	26.80	73 1/2	26.80	73 1/2	26.80	73 1/2
74 1/2	27.20	74 1/2	27.20	74 1/2	27.20	74 1/2
75 1/2	27.60	75 1/2	27.60	75 1/2	27.60	75 1/2
76 1/2	28.00	76 1/2	28.00	76 1/2	28.00	76 1/2
77 1/2	28.40	77 1/2	28.40	77 1/2	28.40	77 1/2
78 1/2	28.80	78 1/2	28.80	78 1/2	28.80	78 1/2
79 1/2	29.20	79 1/2	29.20	79 1/2	29.20	79 1/2
80 1/2	29.60	80 1/2	29.60	80 1/2	29.60	80 1/2
81 1/2	30.00	81 1/2	30.00	81 1/2	30.00	81 1/2
82 1/2	30.40	82 1/2	30.40	82 1/2	30.40	82 1/2
83 1/2	30.80	83 1/2	30.80	83 1/2	30.80	83 1/2
84 1/2	31.20	84 1/2	31.20	84 1/2	31.20	84 1/2
85 1/2	31.60	85 1/2	31.60	85 1/2	31.60	85 1/2
86 1/2	32.00	86 1/2	32.00	86 1/2	32.00	86 1/2
87 1/2	32.40	87 1/2	32.40	87 1/2	32.40	87 1/2
88 1/2	32.80	88 1/2	32.80	88 1/2	32.80	88 1/2
89 1/2	33.20	89 1/2	33.20	89 1/2	33.20	89 1/2
90 1/2	33.60	90 1/2	33.60	90 1/2	33.60	90 1/2
91 1/2	34.00	91 1/2	34.00	91 1/2	34.00	91 1/2
92 1/2	34.40	92 1/2	34.40	92 1/2	34.40	92 1/2
93 1/2	34.80	93 1/2	34.80	93 1/2	34.80	93 1/2
94 1/2	35.20	94 1/2	35.20	94 1/2	35.20	94 1/2
95 1/2	35.60	95 1/2	35.60	95 1/2	35.60	95 1/2
96 1/2	36.00	96 1/2	36.00	96 1/2	36.00	96 1/2
97 1/2	36.40	97 1/2	36.40	97 1/2	36.40	97 1/2
98 1/2	36.80	98 1/2	36.80	98 1/2	36.80	98 1/2
99 1/2	37.20	99 1/2	37.20	99 1/2	37.20	99 1/2
100 1/2	37.60	100 1/2	37.60	100 1/2	37.60	100 1/2
101 1/2	38.00	101 1/2	38.00	101 1/2	38.00	101 1/2
102 1/2	38.40	102 1/2	38.40	102 1/2	38.40	102 1/2
103 1/2	38.80	103 1/2	38.80	103 1/2	38.80	103 1/2
104 1/2	39.20	104 1/2	39.20	104 1/2	39.20	104 1/2
105 1/2	39.60	105 1/2	39.60	105 1/2	39.60	105 1/2
106 1/2	40.00	106 1/2	40.00	106 1/2	40.00	106 1/2
107 1/2	40.40	107 1/2	40.40	107 1/2	40.40	107 1/2
108 1/2	40.80	108 1/2	40.80	108 1/2	40.80	108 1/2
109 1/2	41.20	109 1/2	41.20	109 1/2	41.20	109 1/2
110 1/2	41.60	110 1/2	41.60	110 1/2	41.60	110 1/2
111 1/2	42.00	111 1/2	42.00	111 1/2	42.00	111 1/2
112 1/2	42.40	112 1/2	42.40	112 1/2	42.40	112 1/2
113 1/2	42.80	113 1/2	42.80	113 1/2	42.80	113 1/2
114 1/2	43.20	114 1/2	43.20	114 1/2	43.20	114 1/2
115 1/2	43.60	115 1/2	43.60	115 1/2	43.60	115 1/2
116 1/2	44.00	116 1/2	44.00	116 1/2	44.00	116 1/2
117 1/2	44.40	117 1/2	44.40	117 1/2	44.40	117 1/2
118 1/2	44.80	118 1/2	44.80	118 1/2	44.80	118 1/2
119 1/2	45.20	119 1/2	45.20	119 1/2	45.20	119 1/2
120 1/2	45.60	120 1/2	45.60	120 1/2	45.60	120 1/2
121 1/2	46.00	121 1/2	46.00	121 1/2	46.00	121 1/2
122 1/2	46.40	122 1/2	46.40	122 1/2	46.40	122 1/2
123 1/2	46.80	123 1/2	46.80	123 1/2	46.80	123 1/2
124 1/2	47.20	124 1/2	47.20	124 1/2	47.20	124 1/2
125 1/2	47.60	125 1/2	47.60	125 1/2	47.60	125 1/2
126 1/2	48.00	126 1/2	48.00	126 1/2	48.00	126 1/2
127 1/2	48.40	127 1/2	48.40	127 1/2	48.40	127 1/2
128 1/2	48.80	128 1/2	48.80	128 1/2	48.80	128 1/2
129 1/2	49.20	129 1/2	49.20	129 1/2	49.20	129 1/2
130 1/2	49.60	130 1/2	49.60	130 1/2	49.60	130 1/2
131 1/2	50.00	131 1/2	50.00	131 1/2	50.00	131 1/2
132 1/2	50.40	132 1/2	50.40	132 1/2	50.40	132 1/2
133 1/2	50.80	133 1/2	50.80	133 1/2	50.80	133 1/2
134 1/2	51.20	134 1/2	51.20	134 1/2	51.20	134 1/2
135 1/2	51.60	135 1/2	51.60	135 1/2	51.60	135 1/2
136 1/2	52.00	136 1/2	52.00	136 1/2	52.00	136 1/2
137 1/2	52.40	137 1/2	52.40	137 1/2	52.40	137 1/2
138 1/2	52.80	138 1/2	52.80	138 1/2	52.80	138 1/2
139 1/2	53.20	139 1/2	53.20	139 1/2	53.20	139 1/2
140 1/2	53.60	140 1/2	53.60	140 1/2	53.60	140 1/2
141 1/2	54.00	141 1/2	54.00	141 1/2	54.00	141 1/2
142 1/2	54.40	142 1/2	54.40	142 1/2	54.40	142 1/2
143 1/2	54.80	143 1/2	54.80	143 1/2	54.80	143 1/2
144 1/2	55.20	144 1/2	55.20	144 1/2	55.20	144 1/2
145 1/2	55.60	145 1/2	55.60	145 1/2	55.60	145 1/2
146 1/2	56.00	146 1/2	56.00	146 1/2	56.00	146 1/2
147 1/2	56.40	147 1/2	56.40	147 1/2	56.40	147 1/2
148 1/2	56.80	148 1/2	56.80	148 1/2	56.80	148 1/2
149 1/2	57.20	149 1/2	57.20	149 1/2	57.20	149 1/2
150 1/2	57.60	150 1/2	57.60	150 1/2	57.60	150 1/2
151 1/2	58.00	151 1/2	58.00	151 1/2	58.00	151 1/2
152 1/2	58.40</td					

PIPE HANGERS, HOOK AND EXPANSION PLATES

CAST IRON HOOK PLATES ADJUSTABLE STEEL HANGER RINGS WITH BOLTS



Fig. 8669E

Size, in.	09	.10	.15	.22	Price, Each	No. of Hooks	For Pipe, Inches	Between Centers, Inches	Price, per ft.	Width inches	Number	Solid RING PIPE HANGERS
.08	.09	.10	.15	.22	.26	.32	.27	.43	.65	.12	.14	PERFORATED EXTENSION BARS
.16	.18	.21	.28	.43	.23	.21	.28	.43	.65	.24	.26	PERFORATED EXTENSION BARS
.24	.27	.32	.58	.90	.26	.32	.32	.41	.72	.35	.38	PERFORATED EXTENSION BARS
.35	.38	.41	.72	1.15	.30	.38	.32	.41	.88	.45	.52	PERFORATED EXTENSION BARS

Fig. 8669D

Size

Price

Each

Size

be furnished on application. Add 50 per cent to prices given on this page. Reducing sizes from the factory. Add 50 A complete list of reducing fittings will be furnished in the sand cast.

Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	
1 1/4	.60	1.20	5	9.75	19.50	1 1/4	.85	1.70	4 1/2	1	8.25	4 1/2	.48	1.10	2	2.20	5	17.50	35.00	
1 1/2	.82	1.64	6	13.25	26.50	1 1/2	1.10	2	2.20	5	13.25	19.50	.96	1.64	5	8.25	4 1/2	.48	1.10	
1 3/4	1.20	2.40	7	19.50	39.00	1 3/4	1.10	2	2.20	5	13.25	19.50	1.64	2.40	7	19.50	39.00	1.10	2	
2	1.20	2.40	7	19.50	39.00	2	2.15	4	30	7	35.00	70.00	1.10	2	2.20	5	13.25	19.50	1.64	2.40
2 1/2	1.80	3.60	8	25.50	51.00	2 1/2	2.15	4	30	7	35.00	70.00	1.10	2	2.20	5	13.25	19.50	1.64	2.40
3	6.00	12.00	9	38.00	76.00	3	6.00	12	00	9	68.00	136.00	6.00	12.00	9	38.00	76.00	6.00	12.00	
3 1/2	9.50	19.00	10	80.00	160.00	3 1/2	8.75	17.50	10	80.00	160.00	9.50	19.00	10	80.00	160.00	8.75	17.50		
4	10.50	12	60.00	124.00	4	9.50	19.00	12	107.00	214.00	10.50	12	60.00	124.00	9.50	19.00	12	107.00	214.00	

Fig. 722D



NO. 4 SWEEP TEES

Fig. 722B



NO. 3 SWEEP TEES

Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	Size	Price, Each	
1 1/4	.40	1.10	7	13.00	26.00	1 1/4	.80	1.60	5	13.00	26.00	1 1/4	.40	1.10	7	13.00	26.00	1 1/4	.80	
1 1/2	.55	1.10	7	13.00	26.00	1 1/2	1.10	2	2.20	6	17.50	35.00	1.10	2	2.20	6	17.50	35.00	1.10	2
2	.80	1.60	8	17.50	35.00	2	1.60	3	2.00	7	26.00	52.00	1.60	3	2.00	7	26.00	52.00	1.60	3
2 1/2	1.20	2.40	9	30.00	60.00	2 1/2	2.40	4	4.80	8	34.00	68.00	2.40	4	4.80	8	34.00	68.00	2.40	4
3	1.20	2.40	9	30.00	60.00	3	4.50	9.00	9	51.00	102.00	4.50	9.00	9	51.00	102.00	4.50	9.00		
3 1/2	2.25	6.00	10	45.00	90.00	3 1/2	6.50	13.00	10	60.00	120.00	6.50	13.00	10	60.00	120.00	6.50	13.00		
4	3.25	6.50	12	40.00	80.00	4	7.00	14.00	12	80.00	160.00	7.00	14.00	12	80.00	160.00	7.00	14.00		

Fig. 722C



Fig. 722A



NO. 1 WATER ELBOWS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS
FOR WATER WORKING PRESSURES UP TO 150 POUNDS

CAST IRON LONG TURN FITTINGS

Size	Price	Each	Size	Price	Each	Size	Price	Each	Size	Price	Each
3	8.00	11.00	25.00	32.00	40.00	1	.64	1.20	5	.96	1.60
4	11.00	14.00	25.00	32.00	40.00	2	1.40	2.40	7	2.40	1.10
5	15.00	15.00	25.00	32.00	40.00	3	2.40	3.60	8	3.60	.64
6	18.00	18.00	25.00	32.00	40.00	4	2.40	3.60	12	3.60	1.40
7	25.00	25.00	25.00	25.00	25.00	5	2.40	3.60	10	3.60	1.40
8	32.00	32.00	32.00	32.00	32.00	6	2.40	3.60	10	3.60	1.40
9	40.00	40.00	40.00	40.00	40.00	10	2.40	3.60	10	3.60	1.40
11	48.00	48.00	48.00	48.00	48.00	12	2.40	3.60	10	3.60	1.40
13	56.00	56.00	56.00	56.00	56.00	14	2.40	3.60	10	3.60	1.40
15	64.00	64.00	64.00	64.00	64.00	16	2.40	3.60	10	3.60	1.40
17	72.00	72.00	72.00	72.00	72.00	18	2.40	3.60	10	3.60	1.40
19	80.00	80.00	80.00	80.00	80.00	20	2.40	3.60	10	3.60	1.40
21	88.00	88.00	88.00	88.00	88.00	22	2.40	3.60	10	3.60	1.40
23	96.00	96.00	96.00	96.00	96.00	24	2.40	3.60	10	3.60	1.40
25	104.00	104.00	104.00	104.00	104.00	26	2.40	3.60	10	3.60	1.40
27	112.00	112.00	112.00	112.00	112.00	28	2.40	3.60	10	3.60	1.40
29	120.00	120.00	120.00	120.00	120.00	30	2.40	3.60	10	3.60	1.40
31	128.00	128.00	128.00	128.00	128.00	32	2.40	3.60	10	3.60	1.40
33	136.00	136.00	136.00	136.00	136.00	34	2.40	3.60	10	3.60	1.40
35	144.00	144.00	144.00	144.00	144.00	36	2.40	3.60	10	3.60	1.40
37	152.00	152.00	152.00	152.00	152.00	38	2.40	3.60	10	3.60	1.40
39	160.00	160.00	160.00	160.00	160.00	40	2.40	3.60	10	3.60	1.40
41	168.00	168.00	168.00	168.00	168.00	42	2.40	3.60	10	3.60	1.40
43	176.00	176.00	176.00	176.00	176.00	44	2.40	3.60	10	3.60	1.40
45	184.00	184.00	184.00	184.00	184.00	46	2.40	3.60	10	3.60	1.40
47	192.00	192.00	192.00	192.00	192.00	48	2.40	3.60	10	3.60	1.40
49	200.00	200.00	200.00	200.00	200.00	50	2.40	3.60	10	3.60	1.40
51	208.00	208.00	208.00	208.00	208.00	52	2.40	3.60	10	3.60	1.40
53	216.00	216.00	216.00	216.00	216.00	54	2.40	3.60	10	3.60	1.40
55	224.00	224.00	224.00	224.00	224.00	56	2.40	3.60	10	3.60	1.40
57	232.00	232.00	232.00	232.00	232.00	58	2.40	3.60	10	3.60	1.40
59	240.00	240.00	240.00	240.00	240.00	60	2.40	3.60	10	3.60	1.40
61	248.00	248.00	248.00	248.00	248.00	62	2.40	3.60	10	3.60	1.40
63	256.00	256.00	256.00	256.00	256.00	64	2.40	3.60	10	3.60	1.40
65	264.00	264.00	264.00	264.00	264.00	66	2.40	3.60	10	3.60	1.40
67	272.00	272.00	272.00	272.00	272.00	68	2.40	3.60	10	3.60	1.40
69	280.00	280.00	280.00	280.00	280.00	70	2.40	3.60	10	3.60	1.40
71	288.00	288.00	288.00	288.00	288.00	72	2.40	3.60	10	3.60	1.40
73	296.00	296.00	296.00	296.00	296.00	74	2.40	3.60	10	3.60	1.40
75	304.00	304.00	304.00	304.00	304.00	76	2.40	3.60	10	3.60	1.40
77	312.00	312.00	312.00	312.00	312.00	78	2.40	3.60	10	3.60	1.40
79	320.00	320.00	320.00	320.00	320.00	80	2.40	3.60	10	3.60	1.40
81	328.00	328.00	328.00	328.00	328.00	82	2.40	3.60	10	3.60	1.40
83	336.00	336.00	336.00	336.00	336.00	84	2.40	3.60	10	3.60	1.40
85	344.00	344.00	344.00	344.00	344.00	86	2.40	3.60	10	3.60	1.40
87	352.00	352.00	352.00	352.00	352.00	88	2.40	3.60	10	3.60	1.40
89	360.00	360.00	360.00	360.00	360.00	90	2.40	3.60	10	3.60	1.40
91	368.00	368.00	368.00	368.00	368.00	92	2.40	3.60	10	3.60	1.40
93	376.00	376.00	376.00	376.00	376.00	94	2.40	3.60	10	3.60	1.40
95	384.00	384.00	384.00	384.00	384.00	96	2.40	3.60	10	3.60	1.40
97	392.00	392.00	392.00	392.00	392.00	98	2.40	3.60	10	3.60	1.40
99	400.00	400.00	400.00	400.00	400.00	100	2.40	3.60	10	3.60	1.40
101	408.00	408.00	408.00	408.00	408.00	102	2.40	3.60	10	3.60	1.40
103	416.00	416.00	416.00	416.00	416.00	104	2.40	3.60	10	3.60	1.40
105	424.00	424.00	424.00	424.00	424.00	106	2.40	3.60	10	3.60	1.40
107	432.00	432.00	432.00	432.00	432.00	108	2.40	3.60	10	3.60	1.40
109	440.00	440.00	440.00	440.00	440.00	110	2.40	3.60	10	3.60	1.40
111	448.00	448.00	448.00	448.00	448.00	112	2.40	3.60	10	3.60	1.40
113	456.00	456.00	456.00	456.00	456.00	114	2.40	3.60	10	3.60	1.40
115	464.00	464.00	464.00	464.00	464.00	116	2.40	3.60	10	3.60	1.40
117	472.00	472.00	472.00	472.00	472.00	118	2.40	3.60	10	3.60	1.40
119	480.00	480.00	480.00	480.00	480.00	120	2.40	3.60	10	3.60	1.40
121	488.00	488.00	488.00	488.00	488.00	122	2.40	3.60	10	3.60	1.40
123	496.00	496.00	496.00	496.00	496.00	124	2.40	3.60	10	3.60	1.40
125	504.00	504.00	504.00	504.00	504.00	126	2.40	3.60	10	3.60	1.40
127	512.00	512.00	512.00	512.00	512.00	128	2.40	3.60	10	3.60	1.40
129	520.00	520.00	520.00	520.00	520.00	130	2.40	3.60	10	3.60	1.40
131	528.00	528.00	528.00	528.00	528.00	132	2.40	3.60	10	3.60	1.40
133	536.00	536.00	536.00	536.00	536.00	134	2.40	3.60	10	3.60	1.40
135	544.00	544.00	544.00	544.00	544.00	136	2.40	3.60	10	3.60	1.40
137	552.00	552.00	552.00	552.00	552.00	138	2.40	3.60	10	3.60	1.40
139	560.00	560.00	560.00	560.00	560.00	140	2.40	3.60	10	3.60	1.40
141	568.00	568.00	568.00	568.00	568.00	142	2.40	3.60	10	3.60	1.40
143	576.00	576.00	576.00	576.00	576.00	144	2.40	3.60	10	3.60	1.40
145	584.00	584.00	584.00	584.00	584.00	146	2.40	3.60	10	3.60	1.40
147	592.00	592.00	592.00	592.00	592.00	148	2.40	3.60	10	3.60	1.40
149	600.00	600.00	600.00	600.00	600.00	150	2.40	3.60	10	3.60	1.40
151	608.00	608.00	608.00	608.00	608.00	152	2.40	3.60	10	3.60	1.40
153	616.00	616.00	616.00	616.00	616.00	154	2.40	3.60	10	3.60	1.40
155	624.00	624.00	624.00	624.00	624.00	156	2.40	3.60	10	3.60	1.40
157	632.00	632.00	632.00	632.00	632.00	158	2.40	3.60	10	3.60	1.40
159	640.00	640.00	640.00	640.00	640.00	160	2.40	3.60	10	3.60	1.40
161	648.00	648.00	648.00	648.00	648.00	162	2.40	3.60	10	3.60	1.40
163	656.00	656.00	656.00	656.00	656.00	164	2.40	3.60	10	3.60	1.40
165	664.00	664.00	664.00	664.00	664.00	166	2.40	3.60	10	3.60	1.40
167	672.00	672.00	672.00	672.00	672.00	168	2.40	3.60	10	3.60	1.40
169	680.00	680.00	680.00	680.00	680.00	170	2.40	3.60	10	3.60	1.40
171	688.00	688.00	688.00	688.00	688.00	172	2.40	3.60	10	3.60	1.40
173	696.00	696.00	696.00	696.00	696.00	174	2.40	3.60	10	3.60	1.40
175	704.00	704.00	704.00	704.00	704.00	176	2.40	3.60	10	3.60	1.40
177	712.00	712.00	712.00	712.00	712.00	178	2.40	3.60	10	3.60	1.40
179	720.00	720.00	720.00	720.00	720.00	180	2.40	3.60	10	3.60	1.40
181	728.00	728.00	728.00	728.00	728.00	182	2.40	3.60	10	3.60	1.40
183	736.00	736.00	736.00	736.00	736.00	184	2.40	3.60	10	3.60	1.40
185	744.00	744.00	744.00	744.00	744.00	186	2.40	3.60	10	3.60	1.40
187	752.00	752.00	752.00	752.00	752.00	188	2.40	3.60	10	3.60	1.40
189	760.00	760.00	760.00	760.00	760.00	190	2.40	3.60	10	3.60	1.40
191	768.00	768.00	768.00	768.00	768.00	192	2.40	3.60	10	3.60	1.40
193	776.00	776.00	776.00	776.00	776.00	194	2.40	3.60	10	3.60	1.40
195	784.00	784.00	784.00	784.00	784.00	196	2.40	3.60	10	3.60	1.40
197	792.00	792.00	792.00	792.00	792.00	198	2.40	3.60	10	3.60	1.40
199	800.00	800.00	800.00	800.00	800.00	200	2.40	3.60	10	3.60	1.40
201	808.00	808.00	808.00	808.00	808.00	202	2.40	3.60	10	3.60	1.40
203	816.00	816.00	816.00								

PLAIN RIGHT AND LEFT-HAND NIPPLES

NIPPLES

Add 60 per cent to above prices for galvanized right and left nipples. Add 10 per cent to the above prices for the following sizes, ~~standard~~.

CHICAGO, ILLINOIS

Size, In.	Std. Length.	Price, Each	Size, In.	Std. Length.	Price, Each	Size, In.	Std. Length.	Price, Each	Size, In.	Std. Length.	Price, Each
1/4	10	.17	1 1/4	.24	.24	1	1 1/4	.00	1 1/4	1 1/2	.00
3/8	12	.17	2	21	.21	3/4	2 1/2	.68	1 1/2	2 1/2	.00
1/2	10	.17	1 1/2	24	.28	1 1/2	2 1/2	.85	1 1/2	2 1/2	.00
5/8	12	.17	2	24	.28	3	3 1/2	.61	1 1/2	3 1/2	.00
3/4	12	.17	2 1/2	24	.28	3 1/2	3 1/2	.40	1 1/2	3 1/2	.00
1	12	.17	3 1/2	24	.28	4	4 1/2	.50	1 1/2	4 1/2	.00
1 1/4	12	.17	4 1/2	24	.28	5	5 1/2	.60	1 1/2	5 1/2	.00
1 1/2	12	.17	5 1/2	24	.28	6	6 1/2	.60	1 1/2	6 1/2	.00
1 3/4	12	.17	6 1/2	24	.28	7	7 1/2	.60	1 1/2	7 1/2	.00
2	12	.17	7 1/2	24	.28	8	8 1/2	.60	1 1/2	8 1/2	.00
3/4	12	.17	8 1/2	24	.28	9	9 1/2	.60	1 1/2	9 1/2	.00
1	12	.17	9 1/2	24	.28	10	10 1/2	.60	1 1/2	10 1/2	.00
1 1/4	12	.17	10 1/2	24	.28	11	11 1/2	.60	1 1/2	11 1/2	.00
1 1/2	12	.17	11 1/2	24	.28	12	12 1/2	.60	1 1/2	12 1/2	.00
1 3/4	12	.17	12 1/2	24	.28	13	13 1/2	.60	1 1/2	13 1/2	.00
2	12	.17	13 1/2	24	.28	14	14 1/2	.60	1 1/2	14 1/2	.00
3/4	12	.17	14 1/2	24	.28	15	15 1/2	.60	1 1/2	15 1/2	.00
1	12	.17	15 1/2	24	.28	16	16 1/2	.60	1 1/2	16 1/2	.00
1 1/4	12	.17	16 1/2	24	.28	17	17 1/2	.60	1 1/2	17 1/2	.00
1 1/2	12	.17	17 1/2	24	.28	18	18 1/2	.60	1 1/2	18 1/2	.00
1 3/4	12	.17	18 1/2	24	.28	19	19 1/2	.60	1 1/2	19 1/2	.00
2	12	.17	19 1/2	24	.28	20	20 1/2	.60	1 1/2	20 1/2	.00
3/4	12	.17	20 1/2	24	.28	21	21 1/2	.60	1 1/2	21 1/2	.00
1	12	.17	21 1/2	24	.28	22	22 1/2	.60	1 1/2	22 1/2	.00
1 1/4	12	.17	22 1/2	24	.28	23	23 1/2	.60	1 1/2	23 1/2	.00
1 1/2	12	.17	23 1/2	24	.28	24	24 1/2	.60	1 1/2	24 1/2	.00
1 3/4	12	.17	24 1/2	24	.28	25	25 1/2	.60	1 1/2	25 1/2	.00
2	12	.17	25 1/2	24	.28	26	26 1/2	.60	1 1/2	26 1/2	.00
3/4	12	.17	26 1/2	24	.28	27	27 1/2	.60	1 1/2	27 1/2	.00
1	12	.17	27 1/2	24	.28	28	28 1/2	.60	1 1/2	28 1/2	.00
1 1/4	12	.17	28 1/2	24	.28	29	29 1/2	.60	1 1/2	29 1/2	.00
1 1/2	12	.17	29 1/2	24	.28	30	30 1/2	.60	1 1/2	30 1/2	.00
1 3/4	12	.17	30 1/2	24	.28	31	31 1/2	.60	1 1/2	31 1/2	.00
2	12	.17	31 1/2	24	.28	32	32 1/2	.60	1 1/2	32 1/2	.00
3/4	12	.17	32 1/2	24	.28	33	33 1/2	.60	1 1/2	33 1/2	.00
1	12	.17	33 1/2	24	.28	34	34 1/2	.60	1 1/2	34 1/2	.00
1 1/4	12	.17	34 1/2	24	.28	35	35 1/2	.60	1 1/2	35 1/2	.00
1 1/2	12	.17	35 1/2	24	.28	36	36 1/2	.60	1 1/2	36 1/2	.00
1 3/4	12	.17	36 1/2	24	.28	37	37 1/2	.60	1 1/2	37 1/2	.00
2	12	.17	37 1/2	24	.28	38	38 1/2	.60	1 1/2	38 1/2	.00
3/4	12	.17	38 1/2	24	.28	39	39 1/2	.60	1 1/2	39 1/2	.00
1	12	.17	39 1/2	24	.28	40	40 1/2	.60	1 1/2	40 1/2	.00
1 1/4	12	.17	40 1/2	24	.28	41	41 1/2	.60	1 1/2	41 1/2	.00
1 1/2	12	.17	41 1/2	24	.28	42	42 1/2	.60	1 1/2	42 1/2	.00
1 3/4	12	.17	42 1/2	24	.28	43	43 1/2	.60	1 1/2	43 1/2	.00
2	12	.17	43 1/2	24	.28	44	44 1/2	.60	1 1/2	44 1/2	.00
3/4	12	.17	44 1/2	24	.28	45	45 1/2	.60	1 1/2	45 1/2	.00
1	12	.17	45 1/2	24	.28	46	46 1/2	.60	1 1/2	46 1/2	.00
1 1/4	12	.17	46 1/2	24	.28	47	47 1/2	.60	1 1/2	47 1/2	.00
1 1/2	12	.17	47 1/2	24	.28	48	48 1/2	.60	1 1/2	48 1/2	.00
1 3/4	12	.17	48 1/2	24	.28	49	49 1/2	.60	1 1/2	49 1/2	.00
2	12	.17	49 1/2	24	.28	50	50 1/2	.60	1 1/2	50 1/2	.00
3/4	12	.17	50 1/2	24	.28	51	51 1/2	.60	1 1/2	51 1/2	.00
1	12	.17	51 1/2	24	.28	52	52 1/2	.60	1 1/2	52 1/2	.00
1 1/4	12	.17	52 1/2	24	.28	53	53 1/2	.60	1 1/2	53 1/2	.00
1 1/2	12	.17	53 1/2	24	.28	54	54 1/2	.60	1 1/2	54 1/2	.00
1 3/4	12	.17	54 1/2	24	.28	55	55 1/2	.60	1 1/2	55 1/2	.00
2	12	.17	55 1/2	24	.28	56	56 1/2	.60	1 1/2	56 1/2	.00
3/4	12	.17	56 1/2	24	.28	57	57 1/2	.60	1 1/2	57 1/2	.00
1	12	.17	57 1/2	24	.28	58	58 1/2	.60	1 1/2	58 1/2	.00
1 1/4	12	.17	58 1/2	24	.28	59	59 1/2	.60	1 1/2	59 1/2	.00
1 1/2	12	.17	59 1/2	24	.28	60	60 1/2	.60	1 1/2	60 1/2	.00
1 3/4	12	.17	60 1/2	24	.28	61	61 1/2	.60	1 1/2	61 1/2	.00
2	12	.17	61 1/2	24	.28	62	62 1/2	.60	1 1/2	62 1/2	.00
3/4	12	.17	62 1/2	24	.28	63	63 1/2	.60	1 1/2	63 1/2	.00
1	12	.17	63 1/2	24	.28	64	64 1/2	.60	1 1/2	64 1/2	.00
1 1/4	12	.17	64 1/2	24	.28	65	65 1/2	.60	1 1/2	65 1/2	.00
1 1/2	12	.17	65 1/2	24	.28	66	66 1/2	.60	1 1/2	66 1/2	.00
1 3/4	12	.17	66 1/2	24	.28	67	67 1/2	.60	1 1/2	67 1/2	.00
2	12	.17	67 1/2	24	.28	68	68 1/2	.60	1 1/2	68 1/2	.00
3/4	12	.17	68 1/2	24	.28	69	69 1/2	.60	1 1/2	69 1/2	.00
1	12	.17	69 1/2	24	.28	70	70 1/2	.60	1 1/2	70 1/2	.00
1 1/4	12	.17	70 1/2	24	.28	71	71 1/2	.60	1 1/2	71 1/2	.00
1 1/2	12	.17	71 1/2	24	.28	72	72 1/2	.60	1 1/2	72 1/2	.00
1 3/4	12	.17	72 1/2	24	.28	73	73 1/2	.60	1 1/2	73 1/2	.00
2	12	.17	73 1/2	24	.28	74	74 1/2	.60	1 1/2	74 1/2	.00
3/4	12	.17	74 1/2	24	.28	75	75 1/2	.60	1 1/2	75 1/2	.00
1	12	.17	75 1/2	24	.28	76	76 1/2	.60	1 1/2	76 1/2	.00
1 1/4	12	.17	76 1/2	24	.28	77	77 1/2	.60	1 1/2	77 1/2	.00
1 1/2	12	.17	77 1/2	24	.28	78	78 1/2	.60	1 1/2	78 1/2	.00
1 3/4	12	.17	78 1/2	24	.28	79	79 1/2	.60	1 1/2	79 1/2	.00
2	12	.17	79 1/2	24	.28	80	80 1/2	.60	1 1/2	80 1/2	.00
3/4	12	.17	80 1/2	24	.28	81	81 1/2	.60	1 1/2	81 1/2	.00
1	12	.17	81 1/2	24	.28	82	82 1/2	.60	1 1/2	82 1/2	.00
1 1/4	12	.17	82 1/2	24	.28	83	83 1/2	.60	1 1/2	83 1/2	.00
1 1/2	12	.17	83 1/2	24	.28	84	84 1/2	.60	1 1/2	84 1/2	.00
1 3/4	12	.17	84 1/2	24	.28	85	85 1/2	.60	1 1/2	85 1/2	.00
2	12	.17	85 1/2	24	.28	86	86 1/2	.60	1 1/2	86 1/2	.00
3/4	12	.17	86 1/2	24	.28	87	87 1/2	.60	1 1/2	87 1/2	.00
1	12	.17	87 1/2	24	.28	88	88 1/2	.60	1 1/2	88 1/2	.00
1 1/4	12	.17	88 1/2	24	.28	89	89 1/2	.60	1 1/2	89 1/2	.00
1 1/2	12	.17	89 1/2	24	.28	90	90 1/2	.60	1 1/2	90 1/2	.00
1 3/4	12	.17	90 1/2	24	.28	91	91 1/2	.60	1 1/2	91 1/2	.00
2	12	.17	91 1/2	24	.28	92	92 1/2	.60	1 1/2	92 1/2	.00
3/4	12	.17	92 1/2	24	.28	93	93 1/2	.60	1 1/2	93 1/2	.00
1	12	.17	93 1/2	24	.28	94	94 1/2	.60	1 1/2	94 1/2	.00
1 1/4	12	.17	94 1/2	24	.28	95	95 1/2	.60	1 1/2	95 1/2	.00
1 1/2	12	.17	95 1/2	24	.28	96	96 1/2	.60	1 1/2	96 1/2	.00
1 3/4	12	.17	96 1/2	24	.28	97	97 1/2	.60	1 1/2	97 1/2	.00
2	12	.17	97 1/2	24	.28	98	98 1/2	.60	1 1/2	98 1/2	.00
3/4	12	.17	98 1/2	24	.28	99	99 1/2	.60	1 1/2	99 1/2	.00
1	12	.17	99 1/2	24	.28	100	100 1/2	.60	1 1/2	100 1/2	.00
1 1/4	12	.17	100 1/2	24	.28	101	101 1/2	.60	1 1/2	101 1/2	.00
1 1/2	12	.17	101 1/2	24	.28	102	102 1/2	.60	1 1/2	102 1/2	.00
1 3/4	12	.17	102 1/2	24	.28	103	103 1/2	.60	1 1/2	103 1/2	.00
2	12	.17	103 1/2	24	.28	104	104 1/2	.60	1 1/2	104 1/2	.00
3/4	12	.17	104 1/2	24	.28	105	105 1/2	.60	1 1/2	105 1/2	.00
1	12	.17	105 1/2	24	.28	106	106 1/2	.60	1 1/2	106 1/2	.00
1 1/4	12	.17	106 1/2	24	.28	107	107 1/2	.60	1 1/2	107 1/2	.00
1 1/2	12	.17	107 1/2	24	.28	108	108 1/2	.60	1 1/2	108 1/2	.00
1 3/4	12	.17	108 1/2	24	.28	109	109 1/2	.60	1 1/2	109 1/2	.00
2	12	.17	109 1/2	24	.28	110	110 1/2	.60	1 1/2	110 1/2	.00
3/4	12	.17	110 1/2	24	.28	111	111 1/2	.60	1 1/2	111 1/2	.00
1	12	.17	111 1/2	24	.28	112	112 1/2	.60	1 1/2	112 1/2	.00
1 1/4	12	.17	112 1/2	24	.28	113					

EXTRA HEAVY MALLEABLE IRON

For Steam Working Pressures Up to 250 Pounds

FITTINGS



TEES



ELBOWS



CROSSES



45° ELBOWS

Fig. 8574C

Galvanized extra heavy maileride things made to order at 50 per cent advance on above prices.

Long sweep elbows, 45° chows and crosses are not carried in stock in reducing sizes, but are made to order by pushing the sand from the straight patterns at a special price. Recording to quantity wanted.

REDUCING FITTINGS

Fig. 85/4

EXTRA HEAVY HYDRAULIC IRON FITTINGS

EXTRA HEAVY HYDRAULIC MALLEABLE IRON TUBINGS

ELBOWS FEES



TEES



ELBOWS

Fig. 8577c

Fig. 8577c

45° ELBOWS

LONG SWEET ELBOWS



CROSSES



Fig. 8577D

REBUCING FITTINGS

Long sweep elbows, 45°, shows reduced cross sections not entrained in stock in reduced pipe sizes, but will be made to order by bushings in the sand from straight patterns at a special price according to quantity.

Galvanized extra heavy malleable fittings made to order at 50 per cent advance on above prices.

We make drainage fittings of malleable iron from the regular pattern and are prepared to fill orders with reasonable promptness. They are sold at a special discount from the regular list.

MALEABLE IRON DRAINAGE FITTINGS

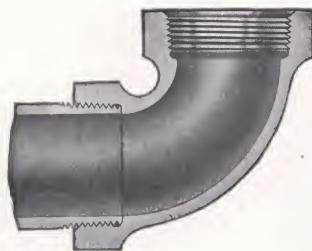
We carry in stock and can furnish galvanized drainage fittings promptly.

GALVANIZED CAST IRON DRAINAGE FITTINGS

When not otherwise specified, these fittings will be furnished with asphaltum coating. All drainage fittings are recessed to allow easy entrance of the pipe and all 90° fittings are threaded pitched $\frac{1}{4}$ inch to foot.

Our drainage fittings are made with a shoulder and are of the same inside diameter as wrought pipe; the pipe screws in up to the shoulder, thus making a continuous passage with no pocket and, consequently, the pipe cannot choke up.

The attention of the trade is called to the large increased number of sizes and the variety of drainage fittings that we now carry regularly in stock.



SCREWED FOR WROUGHT PIPE

CAST IRON DRAINAGE FITTINGS

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

BASIN TEES

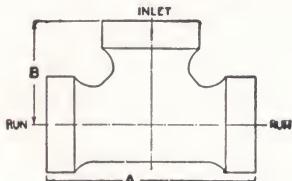


Fig. 1241A

Size Inches	DIMENSIONS, INCHES		PRICE, EACH	
	A	B	Black	Galv.
1 1/4	4 5/8	2 5/16	.60	1.00
1 1/2	5 3/8	2 15/16	.70	1.22
1 1/2 x 1 1/4	5 1/8	2 9/16	.77	1.35
2	7	3 1/2	1.10	1.95
2 x 1 1/4	6 1/4	3 7/8	1.20	2.10
2 x 1 1/2	6 1/2	3 1/4	1.20	2.10
2 1/2	8 1/2	4 1/4	1.75	3.00

TEES

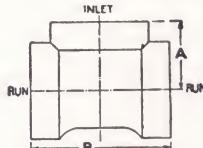


Fig. 1241C

Size Inches	DIMENSIONS, INCHES		PRICE, EACH	
	A	B	Black	Galv.
1 1/4	1 3/4	3 1/2	.45	.80
1 1/2	2 3/16	4 3/8	.55	1.00
1 1/2 x 1 1/4	2 5/16	4 5/8	.60	1.10
2	2 5/16	4 5/8	.80	1.40
2 x 1 1/4	2 1/4	4 1/8	.90	1.60
2 x 1 1/2	2 13/16	5 5/8	1.50	2.50
2 1/2 x 2	2 1/2	6 3/8	1.65	2.75
3	3 3/16	6 3/8	2.00	3.50
3 x 1 1/2	3	5 1/2	2.20	3.85
3 x 2	3	5 1/2	2.20	3.85
4	4	8	3.25	5.70
4 x 2	3 9/16	6	3.60	6.30
4 x 3	3 3/4	7	3.60	6.30
5	4 5/8	9 1/4	6.00	10.50
5 x 2	4 3/16	6	6.60	11.55
5 x 3	4 3/8	6 7/8	6.60	11.55
5 x 4	...	...	6.60	11.55
6	5 3/16	10 3/8	8.75	15.25
7	5 13/16	11 5/8	16.00	28.00
8	6 1/2	13	21.00	37.00
10	7 3/4	15 1/2	43.00	75.00
12	9	18	60.00	100.00
12 x 8	...	...	65.00	110.00
12 x 10	...	...	65.00	110.00
14 x 8	...	...	85.00	145.00
14 x 10	...	...	85.00	145.00
14 x 12	...	...	85.00	145.00

Inlets of tees are tapped, pitched $\frac{1}{4}$ inch to the foot.

Inlets of basin tees and crosses are tapped, pitched $\frac{1}{4}$ inch to the foot.

Inlets on reducing fittings are always the smallest opening.

These fittings have an interior shoulder, and are made with same inside capacity as the inside diameter of the pipe, thus securing an unobstructed surface, allowing all solid matter to pass without choking the pipes.

Fittings are chamfered, thus preventing damage to the threads and permitting of an easy entrance of the pipe in making up joints.

When not otherwise specified, fittings will be coated with heated asphaltum.

Dimensions subject to a slight variation and change without notice.

PARTITION CROSSES

Partition crosses are made to supply a demand in certain localities, but may not be passed by inspectors everywhere.

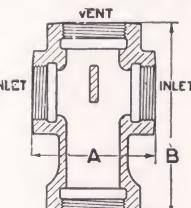


Fig. 1241D

Size Inches	DIMENSIONS, INCHES		PRICE, EACH	
	A	B	Black	Galv.
1 1/4 x 1 1/2	3 1/2	5 1/2	1.25	2.20

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

90° Y BRANCH TEE PATTERN

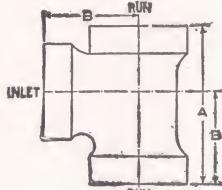


Fig. 1247A

60° Y BRANCH

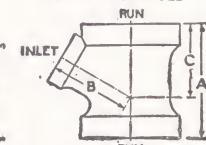


Fig. 1247B

REDUCING 90° Y BRANCHES

TEE PATTERN

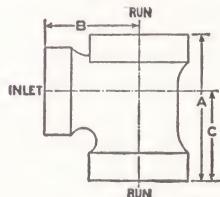


Fig. 1247C

90° Y BRANCHES

TEE PATTERN

Size Inches	DIMENSIONS, IN.			PRICE, EACH	
	A	B	C	Black	Galv.
1	3 1/4	1 15/16	.40	.70	
1 1/4	3 3/4	2 1/4	.45	.80	
1 1/2	4 1/4	2 1/2	.57	1.00	
2	5 3/16	3 1/16	.85	1.50	
2 1/2	6 5/16	3 11/16	1.80	3.15	
3	7 1/4	4 1/4	2.20	3.85	
4	8 3/4	5 3/16	3.50	6.15	
5	10 5/16	6 1/8	6.50	11.35	
6	11 15/16	7 1/8	9.50	16.50	
7	13 5/8	8 1/8	17.50	30.50	
8	15 1/16	9	23.00	40.00	
10	20	11 3/8	47.00	82.00	
12	24 1/2	13 3/4	70.00	124.00	

60° Y BRANCHES

Size Inches	DIMENSIONS, IN.			PRICE, EACH	
	A	B	C	Black	Galv.
1 1/2 x 1 1/2	4 5/8	2 5/8	2 5/8	.65	1.15
2 x 2	5 1/2	3 1/4	3 1/4	.95	1.65
2 x 1 1/2	4 5/8	3 1/16	2 15/16	1.05	1.85
3 x 2	6 7/16	4 1/8	3 15/16	2.90	5.10
4 x 4	9 3/8	5 3/4	5 3/4	3.85	6.75
4 x 2	6 11/16	4 3/4	4 5/16	4.25	7.40
4 x 3	...	...	...	4.25	7.40
5 x 5	11 1/8	6 3/4	6 3/4	7.10	12.50
5 x 2	...	...	...	7.80	13.65
5 x 3	8 1/2	6	5 9/16	7.80	13.65
5 x 4	...	...	...	7.80	13.65
6 x 6	13	7 1/8	7 1/8	10.50	18.50
6 x 2	...	...	...	11.50	20.00
6 x 4	...	...	...	11.50	20.00
6 x 5	...	...	...	11.50	20.00
8 x 4	...	...	...	27.50	48.00
8 x 6	...	...	...	27.50	48.00

Reducing sizes not listed take same list as reducing sizes having the same run.

All fittings are regularly made of a gray iron, of superior quality and high tensile strength, and thoroughly inspected before leaving factory.

Dimensions subject to a slight variation and change without notice.

The inlet of 90° Y branches is tapped, pitched $\frac{1}{4}$ inch to the foot.

These fittings have an interior shoulder, and are made with same inside capacity as the inside diameter of the pipe, thus securing an unobstructed surface, allowing all solid matter to pass without choking the pipe.

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

DOUBLE 90° Y BRANCHES

TEE PATTERN

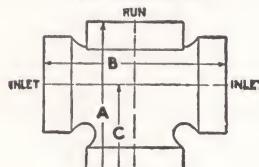


Fig. 1249A

DOUBLE 45° Y BRANCHES

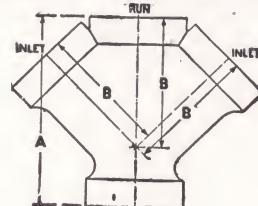


Fig. 1249C

Size Inches	DIMENSIONS, INCHES			PRICE, EACH	
	A	B	C	Black	Galv.
1	3 1/4	3 7/8	1 15/16	.60	1.05
1 1/4	3 3/4	4 1/2	2 1/4	.70	1.22
1 1/2	4 1/4	5	2 1/2	.85	1.50
2	5 3/16	6 1/8	3 13/16	1.30	2.30
2 1/2	6 5/16	7 3/8	3 11/16	2.85	5.00
3	7 1/4	8 1/2	4 1/4	3.40	5.95
4	8 3/4	10 3/8	5 5/16	5.25	9.20
5	10 5/16	12 1/4	6 1/8	9.50	16.50
6	11 15/16	14 1/4	7 1/8	14.00	24.50
7	13 5/8	16 1/4	8 1/8	25.00	42.50
8	15 1/16	18	9	36.00	62.00
10	20	22 3/4	11 3/8	60.00	102.00

REDUCING DOUBLE 90° Y BRANCHES—TEE PATTERN

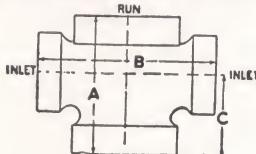


Fig. 1249B

Size Inches	DIMENSIONS, INCHES			PRICE, EACH	
	A	B	C	Black	Galv.
1 1/4 x 1	...	...	...	.77	1.35
1 1/2 x 1 1/4	3 7/8	5	2 3/8	.95	1.65
2 x 1 1/4	...	...	...	1.50	2.60
2 x 1 1/2	4 5/8	5 7/8	2 1/16	1.50	2.60
2 1/2 x 1 1/2	...	...	...	3.15	5.50
2 1/2 x 2	5 1/2	6 5/8	3 1/4	3.15	5.50
3 x 1 1/2	5 1/16	6 5/8	2 15/16	3.75	6.55
3 x 2	5 11/16	7 1/4	3 5/16	3.75	6.55
4 x 2	5 13/16	8 1/8	3 3/8	5.75	10.00
5 x 4	9 1/8	11 3/8	5 3/8	10.50	18.50
6 x 2	6 1/4	10 1/4	3 5/8	15.50	27.00
6 x 4	9 1/4	12 3/8	5 7/16	15.50	27.00
6 x 5	10 9/16	13 1/4	6 1/4	15.50	27.00
8 x 6	15 1/16	17	10	40.00	68.00

The inlets of double 90° Y branches are tapped, pitched $1/4$ inch to the foot.

The inlets on reducing fittings are always the smallest openings.

Dimensions subject to a slight variation add change without notice.

REDUCING DOUBLE 45° Y BRANCHES

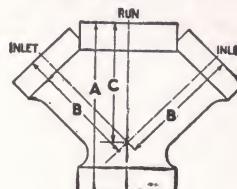


Fig. 1249D

Size Inches	DIMENSIONS, INCHES			PRICE, EACH	
	A	B	C	Black	Galv.
1 1/2 x 1 1/4	...	...	...	...	1.10
2 x 1 1/2	5 7/8	4 1/8	4 1/16	1.60	2.80
2 1/2 x 1 1/4	...	...	...	...	3.60
2 1/2 x 1 1/2	6 7/16	4 5/8	4 9/16	3.60	6.30
3 x 1 1/2	6 5/8	5 1/16	4 15/16	4.40	7.70
3 x 2	7 3/8	5 3/8	5 5/16	4.40	7.70
4 x 2	7 11/16	6 5/16	6	6.35	11.00
4 x 3	9 1/4	7 3/16	6 7/8	6.35	11.00
5 x 2	8 1/4	7 3/16	6 7/8	11.75	20.50
5 x 3	9 3/16	7 7/8	7 5/8	11.75	20.50
5 x 4	11 3/8	8 1/2	8 7/16	11.75	20.50
6 x 2	8 7/16	8 1/16	7 9/16	17.50	30.50
6 x 3	...	...	...	17.50	30.50
6 x 4	11 7/8	9 9/8	9 1/16	17.50	30.50
7 x 6	...	...	...	31.50	54.00
8 x 4	11 7/16	11	10 7/16	42.00	72.00
8 x 6	14 5/16	12 3/8	11 1/8	42.00	72.00

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

45° Y BRANCHES

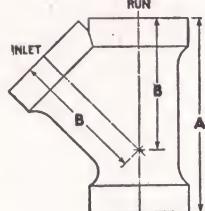


Fig. 1251A

Size Inches	DIMENSIONS, INCHES		PRICE, EACH	
	A	B	Black	Galv.
1 1/4	5	3 1/4	.52	.90
1 1/2	5 1/2	3 5/8	.65	1.15
2	6 7/16	4 5/16	.95	1.65
2 1/2	7 7/8	5 3/8	2.10	3.70
3	9	6 3/8	2.65	4.65
4	10 7/8	7 11/16	3.85	6.75
5	12 15/16	9 3/16	7.10	12.50
6	14 3/4	10 3/4	10.50	18.50
7	16 11/16	12 1/4	19.00	33.25
8	18 13/16	13 9/16	25.00	44.00
10	20	16 1/8	52.00	91.00
12	24 1/4	19 5/8	75.00	130.00
14	28	21 1/2	95.00	165.00

90° LONG TURN Y BRANCHES TEE PATTERN

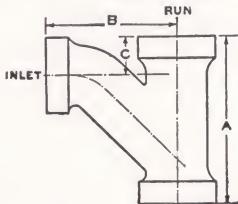


Fig. 1251B

Size Inches	DIMENSIONS, INCHES			PRICE, EACH	
	A	B	C	Black	Galv.
1 1/4	4 3/4	3 5/8	1 3/16	.57	1.00
1 1/2	5 3/8	4 1/8	1 1/4	.70	1.22
2	7 1/16	5 7/16	1 5/8	1.10	1.95
2 1/2	8 1/4	6 1/4	2	2.40	4.20
3	9 15/16	7 1/2	2 5/16	3.35	5.85
4	13 3/4	9 7/8	2 7/8	6.00	10.50
5	15 3/4	12 1/4	3 1/2	9.50	16.50
6	18 11/16	14 9/16	4 1/8	20.00	35.00
7	21 5/8	16 7/8	4 3/4	30.00	52.50
8	24 9/16	19 5/16	5 1/4	40.00	70.00

The inlet of all 90° long turn Y branches is tapped, pitched $\frac{1}{4}$ inch to foot.

The inlets on reducing fittings are always the smallest openings.

Dimensions subject to a slight variation and change without notice.

DOUBLE 90° LONG TURN Y BRANCHES TEE PATTERN

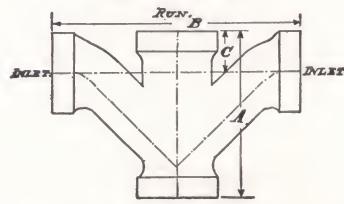


Fig. 1251C

Size Inches	DIMENSIONS, INCHES			PRICE, EACH	
	A	B	C	Black	Galv.
1 1/4	4 3/4	7 1/4	1 3/16	1.00	1.75
1 1/2	5 3/8	8 1/4	1 1/4	1.10	1.95
2	7 1/16	10 7/8	1 5/8	1.75	3.10
2 1/2	8 1/4	12 1/2	2	3.60	6.30
3	9 13/16	15	2 5/16	5.00	8.75
4	13 3/4	19 3/4	2 7/8	9.00	15.75
5	15 3/4	24 1/2	3 1/2	14.00	24.50
6	18 11/16	29 1/8	4 1/8	30.00	52.50
7	21 5/8	33 3/4	4 3/4	45.00	79.00
8	24 9/16	38 5/8	5 1/4	60.00	105.00

REDUCING DOUBLE 90° LONG TURN Y BRANCHES TEE PATTERN

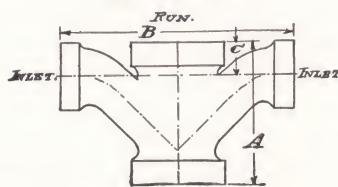


Fig. 1251D

Size Inches	DIMENSIONS, INCHES			PRICE, EACH	
	A	B	C	Black	Galv.
1 1/4 x 1	4 1/4	7	1	1.10	1.90
1 1/2 x 1	4 1/2	7 1/4	1	1.25	2.25
1 1/2 x 1 1/4	5 1/8	7 3/4	1 3/16	1.25	2.25
2 x 1 1/4	...	...	...	1.90	3.35
2 x 1 1/2	5 3/4	8 3/4	1 5/16	1.90	3.35
2 1/2 x 1 1/4	...	...	...	4.00	7.00
2 1/2 x 1 1/2	5 3/4	9 1/8	1 5/16	4.00	7.00
3 x 1 1/2	5 15/16	10	1 5/16	5.50	9.65
3 x 2	7 9/16	12 1/8	1 5/8	5.50	9.65
4 x 2	7 11/16	13 1/4	1 5/8	10.00	17.50
4 x 3	10	16 1/8	2 3/8	10.00	17.50
5 x 4	13	20 7/8	2 7/8	15.50	27.00
6 x 2	7 15/16	15 1/2	1 5/8	33.00	58.00
6 x 4	13 1/16	22	2 7/8	33.00	58.00
6 x 5	16 1/16	25 5/8	3 1/2	33.00	58.00

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

REDUCING 45° Y BRANCHES

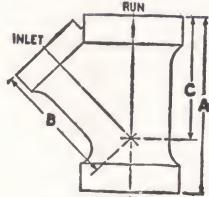


Fig. 1252A

REDUCING 90° LONG TURN Y BRANCHES

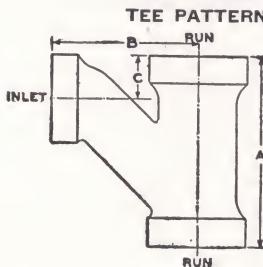


Fig. 1252B

Size Inches	DIMENSIONS, INCHES			PRICE, EACH
	A	B	C	Black Galv.
1 1/2 x 1 1/4	...	...	...	.72 1.25
2 x 1 1/4	...	...	...	1.05 1.85
2 x 1 1/2	5 7/8	4 1/8	4 1/16	1.05 1.85
2 1/2 x 1 1/4	...	...	...	2.30 4.00
2 1/2 x 1 1/2	6 7/16	4 5/8	4 9/16	2.30 4.00
2 1/2 x 2	7 1/16	5 1/8	4 15/16	2.30 4.00
3 x 1 1/4	...	...	...	2.90 5.10
3 x 1 1/2	6 5/8	5 1/16	4 15/16	2.90 5.10
3 x 2	7 3/8	5 3/8	5 5/16	2.90 5.10
3 x 2 1/2	8	5 13/16	5 11/16	2.90 5.10
4 x 1 1/4	...	...	...	4.25 7.40
4 x 1 1/2	7 3/16	6 1/16	5 3/4	4.25 7.40
4 x 2	7 1/16	6 5/16	6	4.25 7.40
4 x 2 1/2	...	...	...	4.25 7.40
4 x 3	9 1/4	7 3/16	6 7/8	4.25 7.40
5 x 2	8 1/4	7 3/16	6 7/8	7.80 13.65
5 x 3	9 9/16	7 7/8	7 5/8	7.80 13.65
5 x 4	11 3/8	8 1/2	8 7/16	7.80 13.65
6 x 2	8 7/16	8 3/16	7 9/16	11.50 20.00
6 x 2 1/2	...	...	...	11.50 20.00
6 x 3	10	8 3/4	8 5/16	11.50 20.00
6 x 4	11 1/8	9 3/8	9 1/16	11.50 20.00
6 x 5	13	10	9 13/16	11.50 20.00
7 x 3	10	9 5/8	8 7/8	21.00 37.00
7 x 4	11 7/16	10 1/4	9 11/16	21.00 37.00
7 x 5	16 11/16	10 15/16	10 1/2	21.00 37.00
7 x 6	16 11/16	11 9/16	11 3/8	21.00 37.00
8 x 3	...	...	...	27.50 48.00
8 x 4	11 7/16	11	10 1/16	27.50 48.00
8 x 5	...	...	...	27.50 48.00
8 x 6	14 5/16	12 3/8	11 7/8	27.50 48.00
10 x 4	14	12 7/8	11 1/2	57.00 97.00
10 x 5	...	...	...	57.00 97.00
10 x 6	15 1/2	14 1/4	13 1/2	57.00 97.00
12 x 6	18	15 3/4	14 1/4	80.00 140.00
14 x 3	...	...	...	105.00 175.00
14 x 4	...	...	...	105.00 175.00
14 x 5	...	...	...	105.00 175.00
14 x 6	19 1/2	17 3/4	16 3/8	105.00 175.00
14 x 12	...	...	...	105.00 175.00

The inlets on reducing fittings are always the smallest openings.

Dimensions subject to a slight variation and change without notice.

The inlet of 90° long turn Y branches is tapped, pitched $1/4$ inch to the foot.

The inlets on reducing fittings are always the smallest openings.

The inlets on reducing fittings are always the smallest openings.

CAST IRON DRAINAGE FITTINGS

SCREWED FOR IRON PIPE

LONG TURN 90° Y BRANCHES WITH 2-INCH SIDE INLETS



Fig. 8487A

90° Y BRANCH CLOSET TEES WITH VENT ON BRANCH

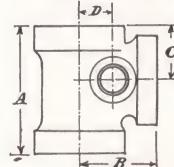


Fig. 8487C

Two-inch vent furnished on right or left side. Specify when ordering

Size	DIMENSIONS, INCHES			PRICE, EACH	
In.	A	B	C	Black	Galv.
4	8 3/4	5 3/16	3 9/16	2 5/16	5.75 10.00

WITH RIGHT OR LEFT SIDE INLETS

Size	PRICE, EACH		Size	PRICE, EACH	
In.	Black	Galv.	In.	Black	Galv.
3	5.25	9.20	5x4	12.00	21.00
4	9.00	15.75	6x4	23.00	40.00

WITH INLETS BOTH SIDES

Size	PRICE, EACH		Size	PRICE, EACH	
In.	Black	Galv.	In.	Black	Galv.
3	5.75	10.00	5x4	13.00	25.00
4	10.00	17.50	6x4	22.75	44.00

LONG TURN 90° Y BRANCHES WITH 2-INCH SIDE AND TOP INLETS



Fig. 8487B

WITH RIGHT OR LEFT SIDE INLET

Size	PRICE, EACH		Size	PRICE, EACH	
In.	Black	Galv.	In.	Black	Galv.
4	10.00	17.50	6x4	25.00	44.00
5x4	13.00	22.75	...	.....	.....

WITH INLETS ON BOTH SIDES

4	11.00	19.25	6x4	28.00	49.00
5x4	14.50	25.50	...	.....	.....

90° Y BRANCH CLOSET TEES WITH SIDE INLET

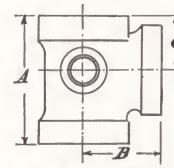


Fig. 8487D

Two-inch inlet furnished on right or left side. Specify when ordering

Size	DIMENSIONS, INCHES			PRICE, EACH	
In.	A	B	C	Black	Galv.
4	8 3/4	5 3/16	3 9/16	5.75	10.00

90° Y BRANCH CLOSET TEES WITH 45° SIDE INLET

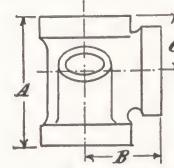


Fig. 8487E

Two-inch inlet furnished on right or left side. Specify when ordering

Size	DIMENSIONS, INCHES			PRICE, EACH	
In.	A	B	C	Black	Galv.
4	8 3/4	5 3/16	3 9/16	6.35	11.00

Dimensions subject to a slight variation and change without notice

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

SPECIAL UPRIGHT Y BRANCHES

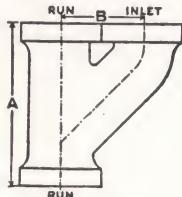


Fig. 1268A

Size Inches	DIMENSIONS, INCHES	PRICE, EACH	
		Black	Galv.
2 x1 1/2	5 7/8 x 2 15/16	2.90	5.10
2 1/2x1 1/2	5 15/16 x 3 5/16	4.50	7.75
2 1/2x2	7 1/8 x 3 5/8	4.50	7.75
3 x2	9 11/16 x 4 5/8	6.00	10.50
3 x3	9 11/16 x 4 5/8	5.50	9.75
4 x2	7 1/8 x 4 9/16	8.75	15.25
4 x4	11 3/4 x 5 9/16	8.00	14.00

OFFSETS

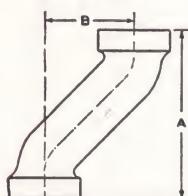


Fig. 1268B

Size Inches	Offset B, In.	Length A, In.	PRICE, EACH	
			Black	Galv.
2	4	7 1/2	2.15	3.75
2	6	9 1/2	2.40	4.20
2	8	11 1/2	2.60	4.55
2	10	13 1/2	2.85	5.00
3	4	8 3/4	3.35	5.85
3	6	10 3/4	4.00	7.00
3	8	12 3/4	4.75	8.30
3	10	14 3/4	5.50	9.65
4	4	9 3/4	5.00	8.75
4	6	11 3/4	5.75	10.00
4	8	13 3/4	6.50	11.35
4	10	15 3/4	7.50	13.15
4	12	17 3/4	8.50	15.00
5	6	12 5/8	9.00	15.75
5	8	14 5/8	10.00	17.50
5	10	16 5/8	11.00	19.25
5	12	18 5/8	12.00	21.00
6	6	13 5/8	12.50	22.00
6	8	15 5/8	13.50	23.50
6	10	17 5/8	14.50	25.50
6	12	19 5/8	15.50	27.00

INCREASERS

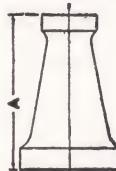


Fig. 1268C

Size Inches	Dimensions, A Inches	PRICE, EACH	
		Black	Galv.
2 x2 1/2	9	1.75	3.00
2 1/2x2	9	2.00	3.50
3 x2	9	2.50	4.40
4 x2	9	3.75	6.55
4 x3	9	3.75	6.55
5 x2	9	5.50	9.65
5 x3	9	5.50	9.65
5 x4	9	5.50	9.65
6 x4	9	6.50	11.35
6 x5	9	6.50	11.35
7 x4	.	12.00	20.00
7 x6	.	12.00	20.00
8 x4	9	15.00	26.25
8 x6	9	15.00	26.25
10 x8	.	20.00	35.00
12 x10	.	40.00	70.00
14 x6	.	55.00	95.00
14 x8	.	55.00	95.00
14 x12	.	55.00	95.00

S TRAPS

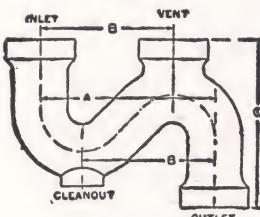


Fig. 1268D

Size Inches	DIMEN. INCHES	PRICE, EACH	
		Black	Galv.
2	8 1/4 x 6 1/4 x 8	1	4.00
3	10 3/4 x 8 1/16 x 11 1/4	1 1/4	9.25
4	14 1/8 x 10 5/8 x 13 3/4	2	14.00
5	16 3/4 x 12 9/16 x 16 7/8	2	21.00
6	20 1/4 x 15 9/16 x 19 3/4	2	36.00

The vent for the 2-inch size is 2 inches; 3-inch size, 3 inches; 4, 5 and 6-inch sizes, 4 inches.

Dimensions subject to a slight variation and change without notice.

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

HALF S TRAPS

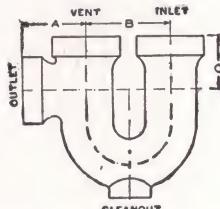


Fig. 8488A

RUNNING TRAPS

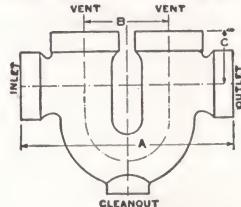


Fig. 8488C

Size Inches	PRICE, EACH	
	Black	Galvanized
1 1/4	1.55	2.70
1 1/2	1.70	3.00
2	2.20	3.85
3	5.00	8.75
4	10.00	17.50
5	21.50	37.50
6	32.50	57.00
7	40.00	70.00
8	55.00	95.00

Size	DIMENSIONS, INCHES			
	A	B	C	Vent
1 1/4	2 5/16	3 1/8	2	1 1/4
1 1/2	2 1/2	3 3/8	2 1/4	1 1/2
2	3 1/16	4	2 9/16	2
3	4 3/16	5 3/8	3 1/2	3 1/4
4	5 1/8	7	4 3/16	4
5	6 1/16	8 3/8	4 3/4	4
6	6 9/16	10 1/8	5 7/16	4
7	7 3/4	11 1/4	6 1/8	5
8	8 15/16	12 3/8	6 3/4	6

P TRAPS

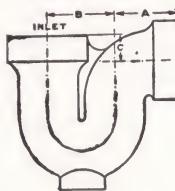


Fig. 8488B

Size In.	DIMENSIONS, INCHES			Cleanout In.	PRICE, EACH
	A	B	C	Black	Galv.
1 1/4	1 15/16	2	3 1/4	3/4	1.45 2.55
1 1/2	2 1/8	2 1/4	7/8	1	1.55 2.70
2	2 9/16	2 3/4	7/8	1	2.00 3.50
3	3 3/8	3 3/4	1 3/16	1 1/4	4.70 8.25

Dimensions subject to a slight variation and change without notice

Size Inches	DIMENSIONS, INCHES			
	A	B	C	Vents
1 1/4	7 3/4	3 1/8	2	1 1/4
1 1/2	8 3/8	3 3/8	2 1/4	1 1/2
2	10 1/8	4	2 9/16	2
3	13 3/4	5 3/8	3 1/2	3
4	17 1/4	7	4 3/16	2
5	20 1/2	8 3/8	4 3/4	2
6	23 1/4	10 1/8	5 7/16	2
7	26 3/4	11 1/4	6 1/8	3
8	30 1/4	12 3/8	6 3/4	3
10	36 1/4	14 3/4	8 1/4	3
12	41 7/8	17	9 1/2	3
14	45	18 1/2	10 1/2	4

The inlet and outlet of running traps are tapped, pitched $1/4$ inch to the foot

CAST IRON BATH TRAPS

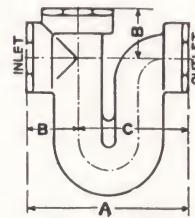


Fig. 8488D

Inlet and outlet tapped for $1\frac{1}{2}$ -inch I. P. and nickel-plated brass cleanout cover tapped $1\frac{1}{2}$ -inch female, I. P.

Size In.	DIMENSIONS, INCHES			PRICE, EACH	
	A	B	C	Black	Galv.
1 1/2	5 5/8	1 3/4	3 1/8	2.00	2.50

CAST IRON DRAINAGE FITTINGS

SCREWED FOR WROUGHT PIPE

CLOSET FLANGES, FEMALE
FOR FLAT GASKET

Fig. 1283A

Size.....	.....inches	4
Diameter of Flange.....	"	7
Price, Malleable Iron.....	each	1.35
" Mal. Iron, Galv.....	"	2.35
" Brass.....	"	7.00

CLOSET FLANGES, MALE
FOR FLAT GASKET

Fig. 1283B

Size.....	.....inches	4
Diameter of Flange.....	"	7
Price, Brass.....	each	7.00

CLOSET FLANGES, MALE
FOR RING GASKET

Fig. 1283C

Size.....	.....inches	4
Diameter of Flange.....	"	7
Price, Brass.....	each	7.00

CLOSET FLANGES, FEMALE
FOR RING GASKET

Fig. 1283D

Size.....	.....inches	4
Diameter of Flange.....	"	7
Price, Malleable Iron.....	each	1.35
" Mal. Iron, Galv.....	"	2.35
" Brass.....	"	7.00

TUCKER CONNECTIONS



Fig. 1283E

Size	Dim. A	PRICE, EACH—
.....Inches	.....Inches	Black Galvanized
2	4½	.80 1.40
3	4¾	2.00 3.50
4	7	3.25 5.70
5	7	6.00 10.50
6	7	8.75 15.25
8	7	21.00 37.00

The inlets on reducing fittings are always the smallest openings.

HUB CONNECTIONS

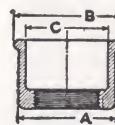


Fig. 1283F

Size	DIMENSIONS, IN.	PRICE, EACH—
.....Inches	A B C	Black Galvanized
2	3½ 3¾ 3	1.15 2.00
3	4¾ 4½ 4½	1.20 2.10
4	5½ 6 5½	1.50 2.60
5	6½ 7½ 6	2.00 3.50
6	7¾ 8¾ 7½	4.25 7.40

BRASS SOLDER NIPPLES

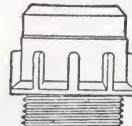


Fig. 1283G

Size	Price	Size	Price
.....Inches	Each	.....Inches	Each
1	.80	3	2.75
1½	.90	4	4.00
1½	1.05	5	9.00
2	1.50	..	....

Dimensions subject to a slight variation and change without notice.

CAST IRON DRUM TRAPS AND FERRULES

CAST IRON DRUM TRAPS
WITH NICKEL-PLATED FLANGED TRAP
SCREW
No. 1

Fig. 8645A

No. 1 trap is tapped $1\frac{1}{2}$ inches on side and bottom.

Size.....inches 4x5
Price, Painted.....each 2.25
" Galvanized....." 3.25



Fig. 8645B

No. 2 trap is furnished with two $1\frac{1}{2}$ inch openings.

Size.....inches 4x8
Price, Painted.....each 2.50
" Galvanized....." 4.00

Covers for above are threaded for 3-inch iron pipe, so that after roughing in, plumber can use 3-inch cast iron plugs for testing purposes.

IRON BODY TRAP SCREW FERRULES



Fig. 8645C

Size Inches	Price Each	Size Inches	Price Each
2	.30	5	.90
3	.40	6	1.20
4	.50	..	....

CAST IRON DRUM TRAPS

WITH NICKEL-PLATED FLANGED TRAP
SCREW

Fig. 8645D



Fig. 8645E

No. 3 trap is furnished with three $1\frac{1}{2}$ inch openings, one near top and two near bottom.

No. 3A trap is furnished with three $1\frac{1}{2}$ -inch openings, two near top and one at bottom.

No.....3 3A
Size.....inches 4x8 4x8
Price, Painted.....each 2.75 2.75
" Galvanized....." 4.25 4.25



Fig. 8645F

No. 4 trap is furnished with four $1\frac{1}{2}$ -inch openings.

Size.....inches 4x8
Price, Painted.....each 3.00
" Galvanized....." 4.50

IRON DRIVE FERRULES



Fig. 8645G

Size.....inches 2 3 4
Price.....each .12 .18 .20

PALMER BACK WATER TRAPS, ETC.

PALMER BACK WATER TRAPS

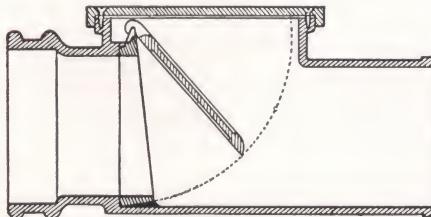
IRON BODY



Fig. 8648A

Made of cast iron, with hub and spigot connection, in sizes to fit regular cast iron soil pipe. Provided with accessible handhole or cleanout, with cover bolted on, with heavy brass screws. Seat and valve are made of non-corrosive white metal, and are securely fitted to inside of iron body. The valve is a swinging gate, swinging into handhole opening, thus allowing a free unobstructed round opening for passage of sewage, the full size of pipe yet closing tightly and preventing ingress of water through backflow of pressure.

Sectional



Size Inches	Price Each	Size Inches	Price Each
2	6.00	6	10.00
3	6.50	8	15.00
4	7.50	10	30.00
5	9.00	12	40.00

Iron body traps with brass valves made to order. Prices on application.

PALMER BACK WATER VALVES



Fig. 8648B

Made entirely of non-corrosive white metal and consists of a flanged seat with swinging gate. The flange on seat is made in sizes to fit the hub openings of regular glazed tile pipe with opening through same, and swinging gate corresponding to bore of pipe. It is intended to be fitted between two lengths of pipe, and when cemented in place forms a positive back water valve yet offers no resistance or obstruction to flow of sewage.

Size Inches	Price Each	Size Inches	Price Each
2	1.00	8	3.20
3	1.20	9	4.00
4	1.60	10	15.00
5	2.00	12	25.00
6	2.40	15	40.00

Brass valves made to order. Prices on application.

SOIL PIPE TESTING PLUGS



Fig. 8648C

Size Inches	Price Each	Size Inches	Price Each
2	1.00	5	2.00
3	1.25	6	2.50
4	1.50	..	..

TESTING PLUG RUBBERS

Size Inches	Price Each	Size Inches	Price Each
2	.25	5	.90
3	.50	6	1.20
4	.70	..	..

Extra quality rubber rings, will fit standard or extra heavy pipe.

CAST IRON FLANGED FITTINGS

STANDARD AND EXTRA HEAVY

Standard and extra heavy reducing elbows carry same dimensions center to face as regular elbows of largest straight size.

Standard and extra heavy tees, crosses and laterals, reducing on run only, carry same dimensions face to face as largest straight size.

Where long radius fittings are specified, it has reference only to Elbows which are made in two center to face dimensions and to be known as Elbows and Long Radius Elbows, the latter being used only when so specified.

All standard weight fittings are recommended for 125 pounds working pressure and extra heavy fittings for 250 pounds working pressure.

All extra heavy fittings and flanges have a raised surface of $\frac{1}{16}$ inch inside of bolt holes for gaskets.

Standard weight fittings and flanges are plain faced.

Bolt holes are $\frac{1}{8}$ inch larger in diameter than bolts. Bolt holes to straddle center line.

Size of all fittings scheduled indicates inside diameter of ports.

The face to face dimensions of reducers, either straight or eccentric, for all pressures shall be the same face to face as given in table of dimensions.

Square head bolts with hexagonal nuts are recommended.

Double branch elbows, whether straight or reducing, carry same dimensions center to face and face to face as regular straight size elbows and tees.

Side outlet elbows and side outlet tees, whether straight or reducing sizes, carry the same dimensions center to face and face to face as regular tees having same reductions.

Bull head tees or tees increasing on outlet have same center to face and face to face dimensions as a straight fitting of the size of the outlet.

Tees and crosses 16 inches and down, reducing on the outlet, use the same dimensions as straight sizes of the larger port.

Double sweep tees are not made reducing on the run.

Bolt holes will not be spot faced unless so ordered, for which an extra charge of 10¢ list will be made.

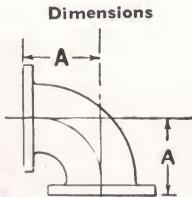
STANDARD FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

ELBOWS



Fig. 24A



45° ELBOWS



Fig. 24B



New Standard effective Jan. 1, 1915.
Recommended by the American Society
of Mechanical Engineers, National Asso-
ciation of Steam and Hot Water Fitters
and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH	
			With Faced Flanges	With *Drilled Flanges
1 1/4	4 1/2	3 3/4	3.00	3.60
1 1/2	5	4	3.00	3.60
2	6	4 1/2	3.00	3.60
2 1/2	7	5	3.15	3.75
3	7 1/2	5 1/2	3.45	4.15
3 1/2	8 1/2	6	4.05	4.90
4	9	6 1/2	4.50	5.50
4 1/2	9 1/4	7	5.50	6.50
5	10	7 1/2	6.25	7.25
6	11	8	7.60	8.90
7	12 1/2	8 1/2	10.50	12.00
8	13 1/2	9	12.00	13.60
9	15	10	17.00	19.25
10	16	11	19.00	21.70
12	19	12	28.00	31.00
14	21	14	41.50	45.25
15	22 1/4	14 1/2	47.00	51.50
16	23 1/2	15	54.50	59.50
18	25	16 1/2	71.00	77.00
20	27 1/2	18	90.00	97.00
22	29 1/2	20	113.00	122.00
24	32	22	140.00	150.00

*Flanged faced and drilled.

Bolt hole will be drilled $\frac{1}{8}$ inch larger than diameter of bolts. All standard weight fittings and flanges have plain faces.

Furnished faced only, unless otherwise ordered.

Larger sizes made to order. Prices on application.

New Standard, effective Jan. 1, 1915.
Recommended by the American Society
of Mechanical Engineers, National Asso-
ciation of Steam and Hot Water Fitters
and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH	
			With Faced Flanges	With *Drilled Flanges
1 1/4	4 1/2	2	3.30	3.90
1 1/2	5	2 1/4	3.30	3.90
2	6	2 1/2	3.30	3.90
2 1/2	7	3	3.50	4.10
3	7 1/2	3 1/2	3.80	4.50
3 1/2	8 1/2	3 1/2	4.50	5.35
4	9	4	5.00	6.00
4 1/2	9 1/4	4 1/4	6.00	7.00
5	10	5	6.90	7.90
6	11	5	8.35	9.65
7	12 1/2	5 1/2	11.00	12.50
8	13 1/2	5 1/2	12.60	14.20
9	15	6	17.75	20.00
10	16	6 1/2	20.00	22.70
12	19	7 1/2	29.50	32.50
14	21	7 1/2	41.50	45.25
15	22 1/4	8	47.00	51.50
16	23 1/2	8	54.50	59.50
18	25	8 1/2	71.00	77.00
20	27 1/2	9 1/2	90.00	97.00
22	29 1/2	10	113.00	122.00
24	32	11	140.00	150.00

*Flanges faced and drilled.

Bolt holes will be drilled $\frac{1}{8}$ inch larger than diameter of bolts. All standard weight fittings and flanges have plain faces.

Size of all fittings scheduled indicates inside diameter of ports.

Furnished faced only, unless otherwise ordered.

Larger sizes made to order. Prices on application.

STANDARD FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

REDUCING TAPER ELBOWS



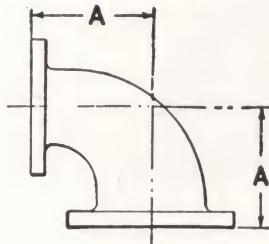
Fig. 725A

New Standard, effective Jan. 1, 1915.
Recommended by the American Society
of Mechanical Engineers, National Asso-
ciation of Steam and Hot Water Fitters
and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH
		With Flanges	With Faced Flanges
3 x1½	7½x 5	5½	6.90 7.60
3 x2	7½x 6	5½	6.90 7.60
3 x2½	7½x 7	5½	6.90 7.60
3½x2	8½x 6	6	8.10 8.95
3½x2½	8½x 7	6	8.10 8.95
3½x3	8½x 7½	6	8.10 8.95
4 x2	9 x 6	6½	9.00 10.00
4 x2½	9 x 7	6½	9.00 10.00
4 x3	9 x 7½	6½	9.00 10.00
4 x3½	9 x 8½	6½	9.00 10.00
4½x2½	9¼x 7	7	11.00 12.00
4½x3½	9¼x 8½	7	11.00 12.00
4½x4	9¼x 9	7	11.00 12.00
5 x2½	10 x 7	7½	12.50 13.50
5 x3	10 x 7½	7½	12.50 13.50
5 x4	10 x 9	7½	12.50 13.50
6 x2½	11 x 7	8	15.25 16.55
6 x3	11 x 7½	8	15.25 16.55
6 x3½	11 x 8½	8	15.25 16.55
6 x4	11 x 9	8	15.25 16.55
6 x5	11 x10	8	15.25 16.55
7 x5	12½x10	8½	21.00 22.50
7 x6	12½x11	8½	21.00 22.50
8 x3½	13½x 8½	9	24.00 25.60
8 x4	13½x 9	9	24.00 25.60
8 x5	13½x10	9	24.00 25.60
8 x6	13½x11	9	24.00 25.60
8 x7	13½x12½	9	24.00 25.60
9 x6	15 x11	10	34.00 36.25
9 x8	15 x13½	10	34.00 36.25

*Flanges faced and drilled.

DIMENSIONS



Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	PRICE, EACH With *Drilled Flanges
10x 4½	16 x 9¼	11	38.00	40.70
10x 5	16 x10	11	38.00	40.70
10x 6	16 x11	11	38.00	40.70
10x 7	16 x12½	11	38.00	40.70
10x 8	16 x13½	11	38.00	40.70
10x 9	16 x15	11	38.00	40.70
12x 6	19 x11	12	56.00	59.00
12x 7	19 x12½	12	56.00	59.00
12x 8	19 x13½	12	56.00	59.00
12x10	19 x16	12	56.00	59.00
14x10	21 x16	14	70.00	73.75
14x12	21 x19	14	70.00	73.75
15x10	22½x16	14½	80.00	84.50
15x12	22½x19	14½	80.00	84.50
16x12	23½x19	15	90.00	95.00
16x14	23½x21	15	90.00	95.00
16x15	23½x22½	15	90.00	95.00
18x15	25 x22½	16½	105.00	111.00
18x16	25 x23½	16½	105.00	111.00
20x14	27½x21	18	120.00	127.00
20x16	27½ x23½	18	120.00	127.00
20x18	27½x25	18	120.00	127.00

*Flanges faced and drilled.

Standard Reducing Elbows carry the same dimensions, center to face, as regular elbows of largest straight size. Bolt holes will be drilled $\frac{1}{8}$ inch larger than diameter of bolts.

All standard weight fittings and flanges have plain faces.

Size of all fittings scheduled indicates inside diameter of ports.

Elbows not listed above, made to order at a special price. Flanged fittings will be furnished faced only, unless otherwise specified.

STANDARD FLANGED FITTINGS
FOR WORKING PRESSURES UP TO 125 POUNDS

LONG RADIUS ELBOWS

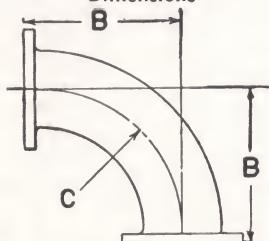


Fig. 8608A

New standard effective Jan. 1, 1915.

Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

Dimensions



Size Inches	Diam. of Flanges Inches	Center to Face, B Inches	Radius Inches	PRICE, EACH	
				With Faced Flanges	With *Drilled Flanges
2	6	6 1/2	5 1/4	5.00	5.90
2 1/2	7	7	5 5/8	5.25	6.15
3	7 1/2	7 3/4	6 1/4	5.75	6.85
3 1/2	8 1/2	8 1/2	6 7/8	6.75	8.00
4	9	9	7 3/8	7.50	9.00
4 1/2	9 1/4	9 1/2	7 3/4	9.25	10.75
5	10	10 1/4	8 1/2	10.50	12.00
6	11	11 1/2	9 5/8	12.65	14.60
7	12 1/2	12 3/4	10 7/8	17.50	19.75
8	13 1/2	14	12	20.00	22.40
9	15	15 1/4	13	28.50	31.85
10	16	16 1/2	14 1/8	31.50	35.50
12	19	19	16 1/2	46.50	51.00
14	21	21 1/2	18 7/8	69.00	74.50
15	22 1/4	22 3/4	20	78.00	84.75
16	23 1/2	24	21 1/4	91.00	98.50
18	25	26 1/2	23 5/8	118.00	127.00
20	27 1/2	29	26	150.00	160.00

*Flanges faced and drilled.

Long radius elbows of different dimensions from above, furnished on order at a special price.

Furnished faced only, unless otherwise ordered.

BASE ELBOWS, ROUND BASE



Fig. 8608B

Size Inches	PRICE, EACH		
	Faced Except Base Flange	Faced and Drilled Except Base Flange	Facing and Drilling Base Flange
4	9.00	10.00	3.00
4 1/2	11.00	12.00	3.00
5	12.50	13.50	3.50
6	15.25	16.55	3.50
7	21.00	22.50	3.50
8	24.00	25.60	5.00
9	34.00	36.25	5.00
10	38.00	40.70	5.00
12	56.00	59.00	7.50
14	70.00	73.75	7.50
15	80.00	84.50	7.50
16	90.00	95.00	7.50
18	105.00	111.00	12.00

Base Elbows are furnished faced only, as quoted, unless otherwise ordered.

Prices of Base Elbows larger than 18-inch, quoted on application.

Size Inches	Diam. of *Flanges Inches	Center to Face Inches	Diam. Base Inches	Center to Face Base Flange Inches
				†Flange Inches
4	9	6 1/2	6	6 1/2
4 1/2	9 1/4	7	6	6 3/4
5	10	7 1/2	7	7
6	11	8	7	7 1/2
7	12 1/2	8 1/2	7	8 1/4
8	13 1/2	9	9	8 3/4
9	15	10	9	9 1/2
10	16	11	9	10
12	19	12	11	10 1/2
14	21	14	12	13 1/2
15	22 1/4	14 1/2	11	14
16	23 1/2	15	11	14 3/4
18	25	16 1/2	13 1/2	15 1/2

*Port openings only, not base flange.

†The measurement across the flat edges of square base flange is the same as the diameter of the round base flange.

STANDARD FLANGED FITTINGS
FOR STEAM WORKING PRESSURES UP TO 125 POUNDS
SIDE OUTLET ELBOWS **REDUCING SIDE OUTLET**
ELBOWS



Fig. 8610A

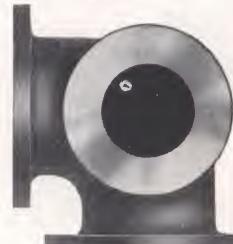


Fig. 8610C

Size In.	Diam. In.	Center to Face In.	PRICE, EACH	
			With Faced Flanges In.	With Faced and Drilled Flanges
4	9	6½	26.50	28.00
5	10	7½	28.50	30.00
6	11	8	33.00	35.00
7	12½	8½	40.25	42.50
8	13½	9	47.50	50.00
10	16	11	76.00	80.00
12	19	12	100.50	105.00
14	21	14	129.50	135.00
16	23½	15	152.50	160.00

DOUBLE BRANCH ELBOWS



Fig. 8610B

Size In.	Diam. In.	Center to Face In.	PRICE, EACH	
			With Faced Flanges In.	With Faced and Drilled Flanges
4	9	6½	29.50	31.00
5	10	7½	31.50	33.00
6	11	8	36.00	38.00
7	12½	8½	44.75	47.00
8	13½	9	52.50	55.00
10	16	11	84.00	88.00
12	19	12	110.50	115.00
14	21	14	144.50	150.00
16	23½	15	167.50	175.00

REDUCING DOUBLE BRANCH
ELBOWS

Fig. 8610D

Size In.	Diam. In.	Center to Face In.	PRICE, EACH	
			With Faced Flanges In.	With Faced and Drilled Flanges
4	9	6½	28.50	30.00
5	10	7½	36.00	37.50
6	11	8	38.00	40.00
7	12½	8½	42.75	45.00
8	13½	9	47.50	50.00
10	16	11	66.00	70.00
12	19	12	90.50	95.00
14	21	14	119.50	125.00
16	23½	15	142.50	150.00

Furnished faced only, unless otherwise ordered.

Larger sizes made to order. Prices on application.

Furnished faced only, unless otherwise ordered.

Larger sizes made to order. Prices on application.

STANDARD FLANGED FITTINGS
FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

TEES



Fig. 25A

New standard, effective Jan. 1, 1915. Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

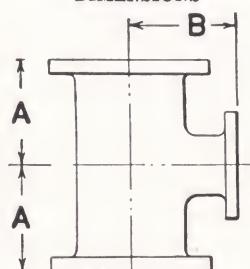
STRAIGHT SIZES

Size Inches	Diam. Inches	Center Flanges Inches	PRICE, EACH		Size Inches	Diam. Inches	Center Flanges Inches	PRICE, EACH	
			With Flanges	With Faced Flanges				*With Flanges	*With Faced Flanges
1 1/4	4 1/2	3 3/4	4.35	5.25	1 1/2	5	4	5.00	5.90
1 1/2	5	4	4.35	5.25	2	6	4 1/2	5.00	5.90
2	6	4 1/2	4.35	5.25	2 1/2	7	5	5.25	6.15
2 1/2	7	5	4.55	5.45	3	7 1/2	5 1/2	5.75	6.85
3	7 1/2	5 1/2	5.00	6.10	3 1/2	8 1/2	6	6.75	8.00
3 1/2	8 1/2	6	5.85	7.10	4	9	6 1/2	7.50	9.00
4	9	6 1/2	6.50	8.00	5	10	7	9.25	10.75
4 1/2	9 1/4	7	8.00	9.50	6	11	7 1/2	10.50	12.00
5	10	7 1/2	9.10	10.60	7	12 1/2	8 1/2	17.50	19.75
6	11	8	11.00	12.95	8	13 1/2	9	20.00	22.40
7	12 1/2	8 1/2	15.25	17.50	9	15	10	28.50	31.85
8	13 1/2	9	17.40	19.80	10	16	11	31.50	35.50
9	15	10	24.65	28.00	12	19	12	46.50	51.00
10	16	11	27.50	31.50	14	21	14	69.00	74.50
12	19	12	40.50	45.00	15	22 1/4	14 1/2	78.00	84.75
14	21	14	60.00	65.50	16	23 1/2	15	91.00	98.50
15	22 1/4	14 1/2	68.00	74.75	18	25	16 1/2	118.00	127.00
16	23 1/2	15	79.00	86.50	20	27 1/2	18	150.00	160.00
18	25	16 1/2	103.00	112.00	22	29 1/2	20	189.00	202.00
20	27 1/2	18	130.00	140.00	24	32	22	233.00	248.00
22	29 1/2	20	164.00	177.00					
24	32	22	203.00	218.00					

*Flanges faced and drilled.

All reducing tees, 16 inches and smaller, take the same center to face dimensions as straight size tees. All tees reducing on the run only, take the same dimensions center to face, as the largest straight size. Tees, sizes 18 inches and larger, and reducing on the outlet, are made in two lengths, depending on the size of outlet.

DIMENSIONS



REDUCING



Fig. 25B

REDUCING SIZES

REDUCING IN RUN OR BRANCH		Diam. Inches	Center to Face Inches	PRICE, EACH	
		Flanges	Flanges	With Faced Flanges	*With Drilled Flanges
		1 1/2	5	4	5.00
		2	6	4 1/2	5.00
		2 1/2	7	5	5.25
		3	7 1/2	5 1/2	6.15
		3 1/2	8 1/2	6	6.75
		4	9	6 1/2	8.00
		5	10	7 1/2	9.00
		6	11	8	10.75
		7	12 1/2	8 1/2	12.00
		8	13 1/2	9	14.60
		9	15	10	19.75
		10	16	11	22.40
		12	19	12	31.85
		14	21	14	35.50
		15	22 1/4	14 1/2	51.00
		16	23 1/2	15	55.00
		18	25	16 1/2	64.50
		20	27 1/2	18	74.50
		22	29 1/2	20	84.75
		24	32	22	98.50

*Flanges faced and drilled.

For variations from foregoing dimensions in 18-inch size and larger with small outlet, see standard dimension table.

Bullheads or tees having outlet larger than the run, will be the same length center to face of all openings as a tee with all openings of the size of the outlet. For example:

A 12x12x16 inch tee will be governed by the dimensions of the 16-inch Zone Body Tee (upper table), namely, 15 inches center to face of all openings and 30 inches face to face.

Furnished faced only, unless otherwise specified. Larger sizes made to order. Prices upon application.

STANDARD FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

SIDE OUTLET TEES

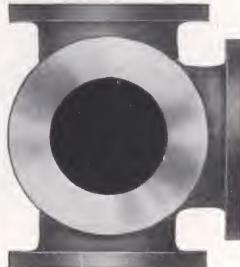


Fig. 8612A

REDUCING SIDE OUTLET TEES



Fig. 8612C

Size In.	Diam. In.	Center to Face In.	PRICE, EACH	
			With Faced Flanges	With Faced and Drilled Flanges
4	9	7½	31.00	33.00
5	10	8	35.00	37.00
6	11	8½	42.25	45.00
7	12½	9	49.50	52.50
8	13½	11	56.75	60.00
10	16	12	84.50	90.00
12	19	14	114.00	120.00
14	21	14½	142.50	150.00
16	23½	15	170.00	180.00

Furnished faced only, unless otherwise specified.

Larger sizes made to order. Prices on application.

When ordering side outlet tees it is requested that a sketch be submitted showing exact size of all openings.

BASE TEES

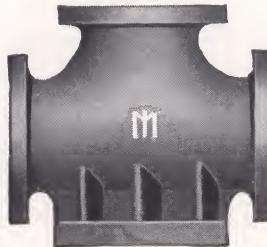


Fig. 8612B

Made to order only.

Dimension drawings should accompany orders or requests for prices.

Prices upon application.

Size In.	Diam. In.	Center to Face In.	PRICE, EACH	
			With Faced Flanges	With Faced and Drilled Flanges
4	9	7½	34.00	36.00
5	10	8	39.00	41.00
6	11	8½	47.25	50.00
7	12½	9	55.00	58.00
8	13½	11	62.75	66.00
10	16	12	94.50	100.00
12	19	14	126.00	132.00
14	21	14½	157.50	165.00
16	23½	15	190.00	200.00

Furnished faced only, unless otherwise specified.

Larger sizes made to order. Prices upon application.

Y BRANCHES



Fig. 8612D

Made to order only.

Dimension drawings should accompany orders or requests for prices.

Prices upon application.

STANDARD FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS
CROSSES

Fig. 28A

DIMENSIONS

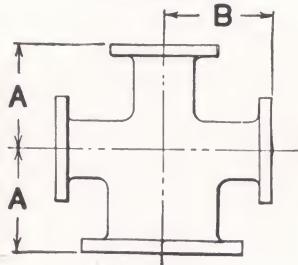


Fig. 28B

New Standard effective Jan. 1, 1915 recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

STRAIGHT SIZES

Size Inches	Diam. Inches	Center to Flanges Inches	PRICE, EACH		Diam. Inches	Center to Flanges Inches	PRICE, EACH	
			With Face Flanges	With Faced Flanges			*With Drilled Flanges	With Faced Flanges
1 1/4	4 1/2	3 3/4	6.75	7.95	2	6	4 1/2	7.75
1 1/2	5	4	6.75	7.95	2 1/2	7	5	8.00
2	6	4 1/2	6.75	7.95	3	7 1/2	5 1/2	8.75
2 1/2	7	5	6.95	8.15	3 1/2	8 1/2	6	10.35
3	7 1/2	5 1/2	7.65	9.05	4	9	6 1/2	11.50
3 1/2	8 1/2	6	9.00	10.70	4 1/2	9 1/4	7	13.50
4	9	6 1/2	10.00	12.00	5	10	7 1/2	13.75
4 1/2	9 1/4	7	12.00	14.00	6	11	8	17.75
5	10	7 1/2	13.75	15.75	7	12	8 1/2	21.75
6	11	8	16.75	19.25	8	13 1/2	12 1/2	26.50
7	12 1/2	8 1/2	23.00	26.00	9	14	13 1/2	29.50
8	13 1/2	9	26.50	29.75	10	15	15	33.75
9	15	10	37.50	42.00	11	16	16	47.50
10	16	11	42.00	47.50	12	17	17	53.50
12	19	12	61.50	67.50	13	19	19	77.00
14	21	14	91.00	98.50	15	21	21	112.50
15	22 1/4	14 1/2	103.00	112.00	16	22 1/4	22 1/4	127.00
16	23 1/2	15	120.00	130.00	18	23 1/2	23 1/2	148.00
18	25	16 1/2	157.00	169.00	20	25	16 1/2	180.00
20	27 1/2	18	198.00	212.00	22	27 1/2	18	192.00
22	29 1/2	20	248.00	266.00	24	29 1/2	20	242.00
24	32	22	310.00	330.00		32	22	303.00

*Flanges faced and drilled.

All reducing crosses, 16 inches and smaller, take the same center to face dimensions as straight size crosses. All crosses reducing on the run only, take the same dimensions, center to face, as the largest straight size.

Furnished faced only, unless otherwise specified on order.

*Flanges faced and drilled crosses.

Sizes 18 inches, and larger, reducing on the outlet, are made in two lengths, depending on the size of the outlet.

Bolt holes are drilled $1\frac{1}{8}$ inch larger in diameter than the diameter of the bolts.

Sizes of all fittings scheduled, indicates the inside diameter of parts.

Furnished faced only, unless otherwise specified or order.

Larger sizes furnished to order. Prices upon application.

STANDARD FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

Y BRANCHES OR LATERALS

STRAIGHT

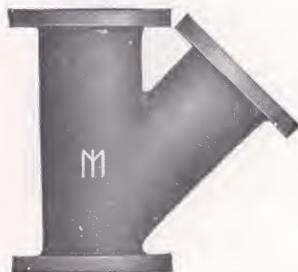
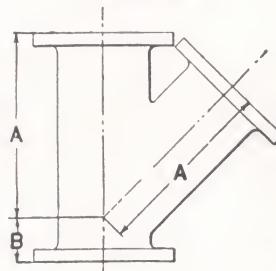


Fig. 29A

DIMENSIONS



REDUCING



Fig. 29B

REDUCING SIZES

REDUCING IN RUN OR BRANCH

New Standard effective Jan. 1, 1915.
Recommended by the American Society
of Mechanical Engineers, National Associa-
tion of Steam and Hotwater Fitters
and manufacturers' Committee.

STRAIGHT SIZES

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	With *Drilled Flanges
2	6	8	6.75	7.95
2½	7	9½	6.95	8.15
3	7½	10	7.65	9.05
3½	8½	11½	9.00	10.70
4	9	12	10.00	12.00
4½	9¼	12½	12.00	14.00
5	10	13½	13.75	15.75
6	11	14½	16.75	19.25
7	12½	16½	23.00	26.00
8	13½	17½	26.50	29.75
9	15	19½	37.50	42.00
10	16	20½	42.00	47.50
12	19	24½	61.50	67.50
14	21	27	91.00	98.50
15	22¼	28½	103.00	112.00
16	23½	30	120.00	130.00
18	25	32	157.00	169.00
20	27½	35	198.00	212.00
22	29½	37½	248.00	266.00
24	32	40½	310.00	330.00

*Flanges faced and drilled.

All laterals reducing on run only, carry the same dimensions, face to face, as straight size laterals. Sizes 18 inches, and up, reducing on the branch, are made in two lengths, depending on the size of the branch. Furnished faced only, unless otherwise specified on order.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	PRICE, EACH With *Drilled Flanges
2½	7	9½	8.00	9.20
3	7½	10	8.75	10.15
3½	8½	11½	10.35	12.05
4	9	12	11.50	13.50
4½	9¼	12½	13.75	15.75
5	10	13½	15.75	17.75
6	11	14½	19.25	21.75
7	12½	16½	26.50	29.50
8	13½	17½	30.50	33.75
9	15	19½	43.00	47.50
10	16	20½	48.00	53.50
12	19	24½	71.00	77.00
14	21	27	105.00	112.00
15	22¼	28½	118.00	127.00
16	23½	30	138.00	148.00
18	25	32	180.00	192.00
20	27½	35	228.00	242.00
22	29½	37½	285.00	303.00
24	32	40½	355.00	375.00

*Flanges faced and drilled.

All reducing "Y" or laterals, 16 inches and smaller, take the same center to face dimensions as the same sizes in straight size fittings.

Bolt holes are drilled $\frac{1}{8}$ inch larger in diameter than the diameter of the bolts.

Sizes of all fittings scheduled, indicates the inside diameter of ports.

Furnished faced only, unless otherwise specified on order. Larger sizes furnished to order. Prices on application.

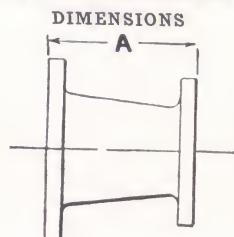
STANDARD FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

TAPER REDUCERS



Fig. 92A



ECCENTRIC



Fig. 92B

New Standard, effective Jan. 1, 1915.
Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

Size Inches	Diam. of Flanges		Face to Flanges		PRICE, EACH		Diam. of Flanges Inches	Face to Flanges Inches	PRICE, EACH		
	Size Inches	Face Inches	Face Faced	With Flanges	*With Flanges	With Flanges			*With Flanges	With Flanges	
3 x 2	7 1/2 x 6	6	6.90	7.60			15 x 8	22 1/4 x 13 1/2	17	80.00	84.50
3 1/2 x 2 1/2	8 1/2 x 7	6 1/2	8.10	8.95			15 x 10	22 1/4 x 16	17	80.00	84.50
4 x 2	9 x 6	7	9.00	10.00			15 x 12	22 1/4 x 19	17	80.00	84.50
4 x 2 1/2	9 x 7	7	9.00	10.00			15 x 14	22 1/4 x 21	17	80.00	84.50
4 x 3	9 x 7 1/2	7	9.00	10.00			16 x 8	23 1/2 x 13 1/2	18	90.00	95.00
5 x 2	10 x 6	8	12.50	13.50			16 x 10	23 1/2 x 16	18	90.00	95.00
5 x 2 1/2	10 x 7	8	12.50	13.50			16 x 12	23 1/2 x 19	18	90.00	95.00
5 x 3	10 x 7 1/2	8	12.50	13.50			16 x 14	23 1/2 x 21	18	90.00	95.00
5 x 4	10 x 9	8	12.50	13.50			18 x 10	25 x 16	19	105.00	111.00
6 x 3	11 x 7 1/2	9	15.25	16.55			18 x 12	25 x 19	19	105.00	111.00
6 x 3 1/2	11 x 8 1/2	9	15.25	16.55			18 x 14	25 x 21	19	105.00	111.00
6 x 4	11 x 9	9	15.25	16.55			18 x 16	25 x 23 1/2	19	105.00	111.00
6 x 5	11 x 10	9	15.25	16.55			20 x 12	27 1/2 x 19	20	120.00	127.00
7 x 3	12 1/2 x 7 1/2	10	21.00	22.50			20 x 14	27 1/2 x 21	20	120.00	127.00
7 x 4	12 1/2 x 9	10	21.00	22.50			20 x 16	27 1/2 x 23 1/2	20	120.00	127.00
7 x 5	12 1/2 x 10	10	21.00	22.50			20 x 18	27 1/2 x 25	20	120.00	127.00
7 x 6	12 1/2 x 11	10	21.00	22.50			22 x 14	29 1/2 x 21	22	150.00	159.00
8 x 3	13 1/2 x 7 1/2	11	24.00	25.60			22 x 16	29 1/2 x 23 1/2	22	150.00	159.00
8 x 4	13 1/2 x 9	11	24.00	25.60			22 x 18	29 1/2 x 25	22	150.00	159.00
8 x 5	13 1/2 x 10	11	24.00	25.60			22 x 20	29 1/2 x 27 1/2	22	150.00	159.00
8 x 6	13 1/2 x 11	11	24.00	25.60			24 x 16	32 x 23 1/2	24	190.00	200.00
10 x 4	16 x 9	12	38.00	40.70			24 x 18	32 x 25	24	190.00	200.00
10 x 5	16 x 10	12	38.00	40.70			24 x 20	32 x 27 1/2	24	190.00	200.00
10 x 6	16 x 11	12	38.00	40.70			24 x 22	32 x 29 1/2	24	190.00	200.00
10 x 8	16 x 13 1/2	12	38.00	40.70							
12 x 5	19 x 10	14	56.00	59.00							
12 x 6	19 x 11	14	56.00	59.00							
12 x 8	19 x 13 1/2	14	56.00	59.00							
12 x 10	19 x 16	14	56.00	59.00							
14 x 6	21 x 11	16	70.00	73.75							
14 x 8	21 x 13 1/2	16	70.00	73.75							
14 x 10	21 x 16	16	70.00	73.75							
14 x 12	21 x 19	16	70.00	73.75							

*Flanges faced and drilled.

Bolt holes will be drilled $1\frac{1}{8}$ -inch larger in diameter than the diameter of the bolts. Bolt holes will always straddle center line. The face to face dimensions, standard or eccentric will be the same.

Flanged taper reducers of any other dimensions special on order.

Furnished faced only, unless otherwise specified on order.

ECCENTRIC REDUCERS

Eccentric Taper Reducers furnished on special order. Prices upon application.

*Flanges faced and drilled.

STANDARD FLANGED FITTINGS

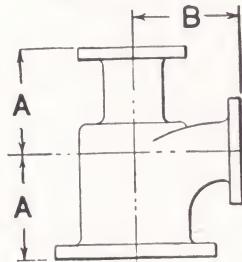
FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

SINGLE SWEEP TEES



Fig. 26A

DIMENSIONS



REDUCING



Fig. 26B

REDUCING SIZES

REDUCING IN RUN OR BRANCH

New Standard, effective Jan. 1, 1915.
 Recommended by the American Society
 of Mechanical Engineers, National Associa-
 tion of Steam and Hot Water Fitters
 and Manufacturers' Committee.

STRAIGHT SIZES

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	PRICE, EACH With Faced Flanges
2	6	4½	5.00	5.90
2½	7	5	5.25	6.15
3	7½	5½	5.75	6.85
3½	8½	6	6.75	8.00
4	9	6½	7.50	9.00
4½	9¼	7	9.25	10.75
5	10	7½	10.50	12.00
6	11	8	12.65	14.60
7	12½	8½	17.50	19.75
8	13½	9	20.00	22.40
9	15	10	28.50	31.85
10	16	11	31.50	35.50
12	19	12	46.50	51.00
14	21	14	69.00	74.50
15	22½	14½	78.00	84.75
16	23½	15	91.00	98.50
18	25	16½	118.00	127.00
20	27½	18	150.00	160.00
22	29½	20	189.00	202.00
24	32	22	233.00	248.00

*Flanges faced and drilled.

All reducing tees, 16 inches and smaller, take the same center to face dimensions as straight size tees. All tees reducing on the run only, take the same dimensions center to face, as the largest straight size. Tees, sizes 18 inches and larger, and reducing on the outlet, are made in two lengths, depending on the size of the reduced outlet.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	PRICE, EACH With *Drilled Flanges
2½	7	5	6.00	6.90
3	7½	5½	6.60	7.70
3½	8½	6	7.75	9.00
4	9	6½	8.65	10.15
4½	9¼	7	10.60	12.10
5	10	7½	12.00	13.50
6	11	8	14.50	16.45
7	12½	8½	20.00	22.25
8	13½	9	23.00	25.40
9	15	10	32.75	36.10
10	16	11	36.00	40.00
12	19	12	53.50	58.00
14	21	14	79.00	84.50
15	22½	14½	90.00	96.75
16	23½	15	105.00	112.50
18	25	16½	135.00	144.00
20	27½	18	173.00	183.00
22	29½	20	217.00	230.00
24	32	22	268.00	283.00

*Flanges faced and drilled.

Reducing Single Sweep Tees made to order only. Single Sweep Tees with the side openings larger than the run are not made.

Bolt holes are drilled $\frac{1}{8}$ -inch larger in diameter than the diameters of bolts. Bolt holes are drilled to straddle center line. Sizes of all fittings scheduled, indicates the inside diameter of ports.

Furnished faced only, unless otherwise specified on order.

Larger sizes furnished to order.

Prices upon application.

STANDARD FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

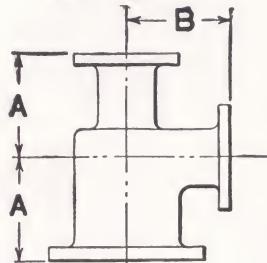
DOUBLE SWEEP TEES

STRAIGHT



Fig. 27A

DIMENSIONS



REDUCING



Fig. 27B

New Standard, effective Jan. 1, 1915.
Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

STRAIGHT SIZES

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH		Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH	
			With Faced Flanges	With *Drilled Flanges			With Faced Flanges	With *Drilled Flanges
2	6	4½	5.00	5.90	2½	6	4½	5.75
2½	7	5	5.25	6.15	3	7½	5½	6.00
3	7½	5½	5.75	6.85	3½	8½	6	6.60
3½	8½	6	6.75	8.00	4	9	6½	7.70
4	9	6½	7.50	9.00				9.00
4½	9½	7	9.25	10.75				10.15
5	10	7½	10.50	12.00	5	9½	7	10.60
6	11	8	12.65	14.60	6	10	7½	12.00
7	12½	8½	17.50	19.75	7	11½	8	13.50
8	13½	9	20.00	22.40	8	12½	8½	14.50
9	15	10	28.50	31.85	9	13½	9	22.25
10	16	11	31.50	35.50	10	15	10	25.40
12	19	12	46.50	51.00	12	16	11	32.75
14	21	14	69.00	74.50	14	19	12	36.00
15	22½	14½	78.00	84.75	15	21	14	40.00
16	23½	15	91.00	98.50	16	22½	15	53.50
18	25	16½	118.00	127.00	18	25	16½	58.00
20	27½	18	150.00	160.00	20	27½	18	79.00
22	29½	20	189.00	202.00	22	29½	20	84.50
24	32	22	233.00	248.00	24	32	22	90.00

*Flanges faced and drilled all reducing tees reducing on the outlet, 16 inches and smaller, take the same center to face dimensions as straight size tees.

Tees, sizes 18 inches and larger, reducing on the outlet are made in two lengths, depending on the size of the outlet.

Furnished faced only, unless otherwise specified on order.

REDUCING SIZES
REDUCING IN BRANCH ONLY

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	PRICE, EACH With *Drilled Flanges
2	6	4½	5.75	6.65
2½	7	5	6.00	6.90
3	7½	5½	6.60	7.70
3½	8½	6	7.75	9.00
4	9	6½	8.65	10.15
4½	9½	7	10.60	12.10
5	10	7½	12.00	13.50
6	11	8	14.50	16.45
7	12½	8½	20.00	22.25
8	13½	9	23.00	25.40
9	15	10	32.75	36.10
10	16	11	36.00	40.00
12	19	12	53.50	58.00
14	21	14	79.00	84.50
15	22½	14½	90.00	96.75
16	23½	15	105.00	112.50
18	25	16½	135.00	144.00
20	27½	18	173.00	183.00
22	29½	20	217.00	230.00
24	32	22	268.00	283.00

*Flanges faced and drilled.

Double sweep tees are not made reducing on the run. Should such tees, however, be wanted we can have the patterns altered (which will be expensive) and charged at a special price.

The branch (outlet) can only be increased within a reasonable limit, which must be regulated by the pattern.

Bolt holes are drilled $\frac{1}{8}$ inch larger in diameter than the diameter of bolts.

Larger sizes furnished to order. Prices on application.

STANDARD COMPANION AND BLIND FLANGES

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS

AMERICAN STANDARD—EFFECTIVE JAN. 1, 1915

COMPANION FLANGES

Back View Showing Hub



Fig. 8619A



Fig. 8619B

Size Inches	CAST IRON		MALLEABLE IRON		Size Inches	PRICE, EACH	
	Faced	Faced and Drilled	Faced	Faced and Drilled		Faced	Faced and Drilled
1 x 4	.55	.80	1.10	1.60	2 x 6	1.15	1.40
1½ x 4½	.60	.85	1.20	1.70	2½ x 7	1.30	1.55
1½ x 5	.65	.90	1.30	1.80	3 x 7½	1.40	1.70
2 x 6	.75	1.00	1.50	2.00	3½ x 8½	1.80	2.15
2½ x 7	.85	1.10	1.70	2.20	4 x 9	2.00	2.45
3 x 7½	.95	1.25	1.90	2.50	4½ x 9½	2.20	2.65
3½ x 8½	1.20	1.55	2.40	3.10	5 x 10	2.40	2.85
4 x 9	1.35	1.80	2.70	3.60	6 x 11	3.00	3.50
4½ x 9½	1.45	1.90	2.90	3.80	7 x 12½	4.00	4.60
5 x 10	1.60	2.05	3.20	4.10	8 x 13½	4.60	5.30
6 x 11	2.00	2.50	4.00	5.00	9 x 15	5.75	6.55
7 x 12½	2.65	3.25	5.30	6.50	10 x 16	6.75	7.75
8 x 13½	3.10	3.80	6.20	7.60	12 x 19	9.75	10.90
9 x 15	3.85	4.65	7.70	9.30	14 x 21	13.50	14.85
10 x 16	4.50	5.50	9.00	11.00	15 x 22½	17.00	18.70
12 x 19	6.50	7.65	13.00	15.30	16 x 23½	20.00	21.80
14 x 21	9.00	10.35	18.00	20.70	18 x 25	24.00	26.00
15 x 21	11.50	13.20	23.00	26.40	20 x 27½	28.00	30.50
15 x 22½	11.50	13.20	23.00	26.40	22 x 29½	33.00	36.00
16 x 23½	13.50	15.30	27.00	30.60	24 x 32	40.00	43.50
18 x 25	16.00	18.00	32.00	36.00			
20 x 27½	19.00	21.50	38.00	43.00			
22 x 29½	22.00	25.00	44.00	50.00			
24 x 32	27.00	30.50	54.00	61.00			

All flanges faced but not drilled unless otherwise ordered.

ECCENTRIC FLANGES

Made to order only.
Prices upon application.

CAST IRON BLIND FLANGES

16-inch O. D. and Smaller



Fig. 8619C

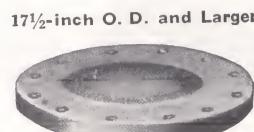


Fig. 8619D

Size Inches	PRICE, EACH		Size Inches	PRICE, EACH	
	Faced	Faced and Drilled		Faced	Faced and Drilled
2 x 6	1.15	1.40	2½ x 7	1.30	1.55
3 x 7½	1.40	1.70	3½ x 8½	1.80	2.15
4 x 9	2.00	2.45	4½ x 9½	2.20	2.65
5 x 10	2.40	2.85	5 x 10	2.40	2.85
6 x 11	3.00	3.50	6 x 11	3.00	3.50
7 x 12½	4.00	4.60	7 x 12½	4.00	4.60
8 x 13½	4.60	5.30	8 x 13½	4.60	5.30
9 x 15	5.75	6.55	9 x 15	5.75	6.55
10 x 16	6.75	7.75	10 x 16	6.75	7.75
12 x 19	9.75	10.90	12 x 19	9.75	10.90
14 x 21	13.50	14.85	14 x 21	13.50	14.85
15 x 22½	17.00	18.70	15 x 22½	17.00	18.70
16 x 23½	20.00	21.80	16 x 23½	20.00	21.80
18 x 25	24.00	26.00	18 x 25	24.00	26.00
20 x 27½	28.00	30.50	20 x 27½	28.00	30.50
22 x 29½	33.00	36.00	22 x 29½	33.00	36.00
24 x 32	40.00	43.50	24 x 32	40.00	43.50

All flanges faced but not drilled unless otherwise ordered.

Spot facing bolt holes, price 10 cents per hole.

Sizes 14-inch and larger are tapped to be used with outside diameter pipe of the same size.

STANDARD REDUCING COMPANION FLANGES WITH RIBS

FOR STANDARD FLANGED VALVES AND FITTINGS
For Steam Working Pressures up to 125 Pounds



Fig. 31A

These flanges, used in connection with straight or reducing fittings, enable us to fill orders for reduced sizes more promptly. Customers who desire fittings reduced in this manner will please specify "Reduce by Flanges if Necessary."

They will always be of the same thickness as the regular companion flanges of corresponding outside diameter, and drilled to the template corresponding to the outside diameter, unless otherwise ordered.

In ordering reducing companion flanges, always give the screwed or reduced size first, then the outside diameter of flange wanted; for instance, if a reducing flange is wanted to connect a 6-inch pipe to a 9-inch flanged valve or fitting having a 15-inch O. D. flange, order a 6x15-inch reducing flange. This will clearly avoid the confusion often caused by orders incorrectly calling for a 9x6 or 6x9-inch flange.

New Standard—Effective January 1, 1915

Recommended by the American Society of Mechanical Engineers, National Association of Master Steam and Hot Water Fitters and Manufacturers' Committee.

PRICE, EACH				PRICE, EACH				PRICE, EACH			
Size Inches	Faced only	Faced and Drilled	Size Inches	Faced only	Faced and Drilled	Size Inches	Faced only	Faced and Drilled	Size Inches	Faced only	Faced and Drilled
1 x 6	1.30	1.55	4 1/2x11	3.30	3.80	8x21	15.00	16.35			
1 1/4x 6	1.30	1.55	5 x11	3.30	3.80	9x21	15.00	16.35			
1 1/2x 6	1.30	1.55	4 x12 1/2	4.40	5.00	10x21	15.00	16.35			
1 1/2x 7	1.45	1.70	4 1/2x12 1/2	4.40	5.00	12x21	15.00	16.35			
2 x 7	1.45	1.70	5 x12 1/2	4.40	5.00	8x22 1/4	19.00	20.70			
1 1/2x 7 1/2	1.55	1.85	6 x12 1/2	4.40	5.00	10x22 1/4	19.00	20.70			
2 x 7 1/2	1.55	1.85	2 x13 1/2	5.10	5.80	12x22 1/4	19.00	20.70			
2 1/2x 7 1/2	1.55	1.85	2 1/2x13 1/2	5.10	5.80	14x22 1/4	19.00	20.70			
2 x 8 1/2	2.00	2.35	3 x13 1/2	5.10	5.80	10x23 1/2	22.00	23.80			
2 1/2x 8 1/2	2.00	2.35	4 x13 1/2	5.10	5.80	12x23 1/2	22.00	23.80			
3 x 8 1/2	2.00	2.35	5 x13 1/2	5.10	5.80	14x23 1/2	22.00	23.80			
2 x 9	2.20	2.65	6 x13 1/2	5.10	5.80	15x23 1/2	22.00	23.80			
2 1/2x 9	2.20	2.65	7 x13 1/2	5.10	5.80	12x25	26.50	28.50			
3 x 9	2.20	2.65	6 x15	6.35	7.15	14x25	26.50	28.50			
3 1/2x 9	2.20	2.65	7 x15	6.35	7.15	15x25	26.50	28.50			
2 1/2x 9 1/4	2.40	2.85	8 x15	6.35	7.15	16x25	26.50	28.50			
3 x 9 1/4	2.40	2.85	2 1/2x16	7.45	8.45	14x27 1/2	31.00	33.50			
3 1/2x 9 1/4	2.40	2.85	3 x16	7.45	8.45	15x27 1/2	31.00	33.50			
4 x 9 1/4	2.40	2.85	3 1/2x16	7.45	8.45	16x27 1/2	31.00	33.50			
2 x 10	2.65	3.10	4 x16	7.45	8.45	18x27 1/2	31.00	33.50			
2 1/2x10	2.65	3.10	5 x16	7.45	8.45	15x29 1/2	36.00	39.00			
3 x 10	2.65	3.10	6 x16	7.45	8.45	16x29 1/2	36.00	39.00			
3 1/2x10	2.65	3.10	7 x16	7.45	8.45	18x29 1/2	36.00	39.00			
4 x 10	2.65	3.10	8 x16	7.45	8.45	20x29 1/2	36.00	39.00			
4 1/2x10	2.65	3.10	9 x16	7.45	8.45	14x32	44.00	47.50			
2 x11	3.30	3.80	6 x19	10.75	11.90	16x32	44.00	47.50			
2 1/2x11	3.30	3.80	7 x19	10.75	11.90	18x32	44.00	47.50			
3 x11	3.30	3.80	8 x19	10.75	11.90	20x32	44.00	47.50			
3 1/2x11	3.30	3.80	9 x19	10.75	11.90	Sizes 14 inches and over are tapped to be used with O. D. pipe of the same sizes.					
4 x11	3.30	3.80	10 x19	10.75	11.90	20x32	44.00	47.50	Spot facing bolt holes, list price of 10c per hole.		

Furnished smooth faced and not drilled, unless otherwise specified.

TEMPLATES AND PRICES

FOR DRILLING STANDARD AND LOW PRESSURE FLANGED VALVES AND FITTINGS



Fig. 8681A

SIZES 1-1NCH TO 48-INCH, INCLUSIVE
 These drilling templates are in multiples of four, so that fittings may be made to face in any quarter, and bolt holes straddle the center line. They can be drilled to any other template, if so desired.

Bolt holes are drilled $\frac{1}{8}$ inch larger than nominal diameter of bolts, except that brass valves and fittings, 6-inch and smaller, have holes $\frac{1}{16}$ inch larger than the bolts.

New Standard Effective January 1, 1915

Recommended by the American Society of Mechanical Engineers, National Association of Master Steam and Hot Water Fitters and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Thickness of Flanges Inches	Bolt Circle Inches	No. of Bolts	Size of Bolts Inches	Bolt Lengths Inches	PRICE, EACH, FOR DRILLING			
							With Two Flanges Except Angle Valves	Angle Valves	Cross Valves and Cross Safety Valves	
1	4	$\frac{7}{16}$	3	4	$\frac{7}{16}$	$1\frac{1}{2}$	.60	1.00	1.20	
$1\frac{1}{4}$	$4\frac{1}{2}$	$\frac{1}{2}$	$3\frac{3}{8}$	4	$\frac{1}{16}$	$1\frac{1}{2}$	.60	1.00	1.20	
$1\frac{1}{2}$	5	$\frac{9}{16}$	$3\frac{7}{8}$	4	$\frac{1}{2}$	$1\frac{3}{4}$	.60	1.00	1.20	
2	6	$\frac{5}{8}$	$4\frac{3}{4}$	4	$\frac{5}{8}$	2	.75	1.25	1.50	
$2\frac{1}{2}$	7	$\frac{11}{16}$	$5\frac{1}{2}$	4	$\frac{5}{8}$	$2\frac{1}{4}$	.75	1.25	1.50	
3	$7\frac{1}{2}$	$\frac{3}{4}$	6	4	$\frac{5}{8}$	$2\frac{1}{2}$	.75	1.25	1.50	
$3\frac{1}{2}$	$8\frac{1}{2}$	$\frac{13}{16}$	7	4	$\frac{5}{8}$	$2\frac{1}{2}$	1.00	1.50	2.00	
4	9	$\frac{15}{16}$	$7\frac{1}{2}$	8	$\frac{5}{8}$	$2\frac{3}{4}$	1.25	1.75	2.50	
$4\frac{1}{2}$	$9\frac{1}{4}$	$\frac{15}{16}$	$7\frac{3}{4}$	8	$\frac{3}{4}$	3	1.50	2.00	3.00	
5	10	$\frac{15}{16}$	$8\frac{1}{2}$	8	$\frac{3}{4}$	3	1.50	2.00	3.00	
6	11	1	$9\frac{1}{2}$	8	$\frac{3}{4}$	3	1.75	2.50	3.50	
7	$12\frac{1}{2}$	$\frac{11}{16}$	$10\frac{3}{4}$	8	$\frac{3}{4}$	3	2.25	3.00	4.50	
8	$13\frac{1}{2}$	$\frac{11}{8}$	$11\frac{3}{4}$	8	$\frac{3}{4}$	$3\frac{1}{4}$	2.25	3.00	4.50	
9	15	$\frac{11}{8}$	$13\frac{1}{4}$	12	$\frac{3}{4}$	$3\frac{1}{4}$	2.50	3.50	5.00	
10	16	$\frac{13}{16}$	$14\frac{1}{4}$	12	$\frac{7}{8}$	$3\frac{1}{2}$	2.50	3.50	5.00	
12	19	$\frac{11}{4}$	17	12	$\frac{7}{8}$	$3\frac{3}{4}$	3.50	5.00	7.00	
14	21	$\frac{13}{8}$	$18\frac{3}{4}$	12	1	$4\frac{1}{4}$	4.00	6.00	...	
15	$22\frac{1}{4}$	$\frac{13}{8}$	20	16	1	$4\frac{1}{4}$	4.50	6.50	...	
16	$23\frac{1}{2}$	$\frac{17}{16}$	$21\frac{1}{4}$	16	1	$4\frac{1}{4}$	5.00	7.00	...	
18	25	$\frac{19}{16}$	$22\frac{3}{4}$	16	$1\frac{1}{8}$	$4\frac{3}{4}$	6.00	10.00	...	
20	$27\frac{1}{2}$	$\frac{11}{16}$	25	20	$1\frac{1}{8}$	5	7.50	12.00	...	
22	$29\frac{1}{2}$	$\frac{13}{16}$	$27\frac{1}{4}$	20	$1\frac{1}{4}$	$5\frac{1}{2}$	9.00	14.00	...	
24	32	$\frac{7}{8}$	$29\frac{1}{2}$	20	$1\frac{1}{4}$	$5\frac{1}{2}$	10.00	16.00	...	
26	$34\frac{1}{4}$	2	$31\frac{3}{4}$	24	$1\frac{1}{4}$	$5\frac{3}{4}$	11.00	18.00	...	
28	$36\frac{1}{2}$	$\frac{21}{16}$	34	28	$1\frac{1}{4}$	6	12.00	20.00	...	
30	$38\frac{3}{4}$	$\frac{21}{8}$	36	28	$1\frac{3}{8}$	$6\frac{1}{4}$	12.00	22.00	...	
32	$41\frac{3}{4}$	$\frac{21}{4}$	$38\frac{1}{2}$	28	$1\frac{1}{2}$	$6\frac{1}{2}$	12.00	22.00	...	
34	$43\frac{3}{4}$	$\frac{25}{16}$	$40\frac{1}{2}$	32	$1\frac{1}{2}$	$6\frac{1}{2}$	14.00	24.00	...	
36	46	$\frac{23}{8}$	$42\frac{3}{4}$	32	$1\frac{1}{2}$	7	14.00	24.00	...	
38	$48\frac{3}{4}$	$\frac{23}{8}$	$45\frac{1}{4}$	32	$1\frac{5}{8}$	7	...	...	...
40	$50\frac{3}{4}$	$\frac{21}{2}$	$47\frac{1}{4}$	36	$1\frac{5}{8}$	7	...	...	...
42	53	$\frac{25}{8}$	$49\frac{1}{2}$	36	$1\frac{5}{8}$	$7\frac{1}{2}$	25.00	...	...
44	$55\frac{1}{4}$	$\frac{25}{8}$	$51\frac{3}{4}$	40	$1\frac{5}{8}$	$7\frac{1}{2}$	...	...	...
46	$57\frac{1}{4}$	$\frac{21}{16}$	$53\frac{3}{4}$	40	$1\frac{5}{8}$	$7\frac{1}{2}$	30.00	...	...
48	$59\frac{1}{2}$	$\frac{23}{4}$	56	44	$1\frac{5}{8}$	8	...	...	...

STANDARD FLANGED FITTINGS AND FLANGES

EXTRA PRICE FOR GALVANIZING

Galvanized Standard Cast Iron Flanged Fittings will be made to order at an advance over the black price as stated below.

Galvanized Standard Cast Iron Flanged Fittings will be made to order at an advance over the black price as stated below.

Size In.	Flanged Taper Reducers	Flanged Elbows	Reducing Flanged Elbows	Flanged 45° Elbows	Size In.	Flanged Long Radius Elbows	Flanged Base Elbows	Flanged Tees	Flanged Reducing Tees
1 1/4	2.40	2.40	2.40	2.40	1 1/4	3.60	3.60	3.60	3.60
1 1/2	2.40	2.40	2.40	2.40	1 1/2	3.60	3.60	3.60	3.60
2	2.40	2.40	2.40	2.40	2	3.60	3.60	3.60	3.60
2 1/2	2.50	2.50	2.50	2.50	2 1/2	3.75	3.75	3.75	3.75
3	2.75	2.75	2.75	2.75	3	4.15	4.15	4.15	4.15
3 1/2	3.25	3.25	3.25	3.25	3 1/2	4.90	4.90	4.90	4.90
4	3.65	3.65	3.65	3.65	4	5.50	5.50	5.50	5.50
4 1/2	4.35	4.35	4.35	4.35	4 1/2	6.50	6.50	6.50	6.50
5	4.85	4.85	4.85	4.85	5	7.25	7.25	7.25	7.25
6	6.00	6.00	6.00	6.00	6	9.00	9.00	9.00	9.00
7	8.00	8.00	8.00	8.00	7	12.00	12.00	12.00	12.00
8	9.00	9.00	9.00	9.00	8	13.50	13.50	13.50	13.50
9	13.00	13.00	13.00	13.00	9	19.50	19.50	19.50	19.50
10	14.50	14.50	14.50	14.50	10	22.00	22.00	22.00	22.00
12	21.00	21.00	21.00	21.00	12	31.00	31.00	31.00	31.00
14	30.00	30.00	30.00	30.00	14	45.00	45.00	45.00	45.00
15	35.00	35.00	35.00	35.00	15	52.50	52.50	52.50	52.50
16	40.00	40.00	40.00	40.00	16	60.00	60.00	60.00	60.00

Size In.	Flanged Crosses	Flanged Reducing Crosses	Flanged Laterals	Reducing Flanged Laterals	REDUCING COMPANION FLANGES				BLIND FLANGES	
					Size In.	Companion Flanges	Diam. In.	Price Each	Diam. In.	Price Each
1 1/4	4.80	4.80	4.80	4.80	1 1/4	.60	...	...	...	...
1 1/2	4.80	4.80	4.80	4.80	1 1/2	.60	...	...	...	...
2	4.80	4.80	4.80	4.80	2	.70	6	1.00	6	1.00
2 1/2	5.00	5.00	5.00	5.00	2 1/2	.75	7	1.10	7	1.10
3	5.50	5.50	5.50	5.50	3	.85	7 1/2	1.25	7 1/2	1.25
3 1/2	6.50	6.50	6.50	6.50	3 1/2	1.00	8 1/2	1.50	8 1/2	1.50
4	7.25	7.25	7.25	7.25	4	1.20	9	1.80	9	1.80
4 1/2	8.75	8.75	8.75	8.75	4 1/2	1.25	9 1/4	1.90	9 1/4	1.90
5	9.75	9.75	9.75	9.75	5	1.35	10	2.00	10	2.00
6	12.00	12.00	12.00	12.00	6	1.65	11	2.50	11	2.50
7	16.00	16.00	16.00	16.00	7	2.15	12 1/2	3.25	12 1/2	3.25
8	18.00	18.00	18.00	18.00	8	2.50	13 1/2	3.75	13 1/2	3.75
9	26.00	26.00	26.00	26.00	9	3.00	15	4.50	15	4.50
10	29.00	29.00	29.00	29.00	10	3.75	16	5.75	16	5.75
12	42.00	42.00	42.00	42.00	12	5.00	19	7.50	19	7.50
14	60.00	60.00	60.00	60.00	14	7.00	21	10.50	21	10.50
15	70.00	70.00	70.00	70.00	15	9.00	22 1/4	13.50	22 1/4	13.50
16	80.00	80.00	80.00	80.00	16	10.50	23 1/2	16.00	23 1/2	16.00

STANDARD CAST IRON REDUCING FLANGED FITTINGS

LIST OF SIZES — REDUCING FLANGED TEES

$2\frac{1}{2} \times 2\frac{1}{2} \times 2$	5 x 4 x 3	8 x 8 x 3 $\frac{1}{2}$	10 x 8 x 7
$2\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$	5 x 4 x 2 $\frac{1}{2}$	8 x 8 x 3	10 x 8 x 6
$2\frac{1}{2} \times 2 \times 1\frac{1}{2}$	5 x 4 x 2	8 x 8 x 2 $\frac{1}{2}$	10 x 8 x 5
	5 x 3 $\frac{1}{2}$ x 4	8 x 8 x 2	10 x 8 x 4
3 x 3 x 2 $\frac{1}{2}$	5 x 3 x 3 $\frac{1}{2}$	8 x 7 x 8	10 x 7 x 7
3 x 3 x 2	5 x 3 x 3	8 x 6 x 8	10 x 6 x 8
3 x 3 x 1 $\frac{1}{2}$	4 x 4 x 5	8 x 5 x 8	10 x 6 x 6
3 x 3 x 1 $\frac{1}{4}$		8 x 4 x 8	8 x 8 x 10
3 x 2 $\frac{1}{2}$ x 3	6 x 6 x 5	8 x 3 $\frac{1}{2}$ x 8	8 x 6 x 10
3 x 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	6 x 6 x 4 $\frac{1}{2}$	8 x 3 x 8	6 x 6 x 10
3 x 2 $\frac{1}{2}$ x 2	6 x 6 x 4	8 x 7 x 7	
3 x 2 x 2 $\frac{1}{2}$	6 x 6 x 3 $\frac{1}{2}$	8 x 7 x 6	
3 x 2 x 3	6 x 6 x 3	8 x 7 x 5	
2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 3	6 x 6 x 2 $\frac{1}{2}$	8 x 7 x 4	
	6 x 6 x 2	8 x 6 x 6	12 x 12 x 10
3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 3	6 x 6 x 1 $\frac{1}{2}$	8 x 6 x 5	12 x 12 x 9
3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 2 $\frac{1}{2}$	6 x 5 x 6	8 x 6 x 4	12 x 12 x 8
3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 2	6 x 4 x 6	8 x 6 x 3	12 x 12 x 7
3 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	6 x 3 x 6	8 x 5 x 7	12 x 12 x 6
	6 x 2 $\frac{1}{2}$ x 6	8 x 5 x 6	12 x 12 x 5
4 x 4 x 3 $\frac{1}{2}$	6 x 2 x 6	8 x 5 x 5	12 x 12 x 4 $\frac{1}{2}$
4 x 4 x 3	6 x 5 x 5	8 x 4 x 6	12 x 12 x 4
4 x 4 x 2 $\frac{1}{2}$	6 x 5 x 4	8 x 4 x 4	12 x 12 x 3
4 x 4 x 2	6 x 5 x 3	7 x 7 x 8	12 x 12 x 2
4 x 4 x 1 $\frac{1}{2}$	6 x 5 x 2 $\frac{1}{2}$	6 x 6 x 8	12 x 10 x 12
4 x 4 x 1 $\frac{1}{4}$	6 x 4 x 5	5 x 5 x 8	12 x 8 x 12
4 x 3 $\frac{1}{2}$ x 4	6 x 4 x 4	9 x 9 x 8	12 x 6 x 12
4 x 3 x	6 x 4 x 3	9 x 9 x 7	12 x 4 x 12
4 x 2 $\frac{1}{2}$ x 4	6 x 4 x 2 $\frac{1}{2}$	9 x 9 x 6	12 x 10 x 10
4 x 2 x 4	5 x 5 x 6	9 x 9 x 5	12 x 10 x 8
4 x 3 x 3	5 x 4 x 6	9 x 9 x 4	12 x 10 x 6
4 x 3 x 2 $\frac{1}{2}$	4 x 4 x 6	9 x 9 x 3	12 x 8 x 10
4 x 3 x 2		9 x 9 x 2 $\frac{1}{2}$	12 x 8 x 8
4 x 2 $\frac{1}{2}$ x 3	7 x 7 x 6	9 x 6 x 6	12 x 8 x 6
4 x 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	7 x 7 x 5		12 x 6 x 8
4 x 2 x 2	7 x 7 x 4		10 x 10 x 12
3 x 3 x 4	7 x 7 x 3 $\frac{1}{2}$		8 x 8 x 12
	7 x 7 x 3		
4 $\frac{1}{2}$ x 4 $\frac{1}{2}$ x 4	7 x 7 x 2 $\frac{1}{2}$	10 x 10 x 9	14 x 14 x 12
4 $\frac{1}{2}$ x 4 $\frac{1}{2}$ x 3	7 x 7 x 2	10 x 10 x 8	14 x 14 x 10
4 $\frac{1}{2}$ x 4 $\frac{1}{2}$ x 2 $\frac{1}{2}$	7 x 6 x 7	10 x 10 x 7	14 x 14 x 8
	7 x 5 x 7	10 x 10 x 6	14 x 14 x 7
5 x 5 x 4	7 x 4 x 7	10 x 10 x 5	14 x 14 x 6
5 x 5 x 3 $\frac{1}{2}$	7 x 3 x 7	10 x 10 x 4 $\frac{1}{2}$	14 x 14 x 5
5 x 5 x 3	7 x 6 x 6	10 x 10 x 4	14 x 12 x 14
5 x 5 x 2 $\frac{1}{2}$	7 x 6 x 5	10 x 10 x 3	14 x 12 x 12
5 x 5 x 2	6 x 6 x 7	10 x 10 x 2	14 x 10 x 10
5 x 5 x 1 $\frac{1}{2}$	5 x 5 x 7	10 x 8 x 10	10 x 10 x 14
5 x 5 x 1 $\frac{1}{4}$		10 x 7 x 10	
5 x 4 x 5	8 x 8 x 7	10 x 6 x 10	16 x 16 x 14
5 x 3 x 5	8 x 8 x 6	10 x 5 x 10	16 x 16 x 12
5 x 2 $\frac{1}{2}$ x 5	8 x 8 x 5	10 x 4 x 10	16 x 16 x 10
5 x 2 x 5	8 x 8 x 4 $\frac{1}{2}$	10 x 3 x 10	16 x 16 x 8
5 x 4 x 4	8 x 8 x 4	10 x 8 x 8	16 x 16 x 6
			16 x 12 x 12
			12 x 12 x 16

(Continued on following page.)

STANDARD CAST IRON FLANGED FITTINGS

REDUCING SINGLE SWEEP FLANGED TEES

6 x 6 x 5	6 x 6 x 2½	8 x 8 x 3	10 x 10 x 6
6 x 6 x 4	8 x 8 x 6	8 x 6 x 6	10 x 8 x 8
6 x 6 x 3	8 x 8 x 5	8 x 6 x 4	10 x 6 x 6

REDUCING DOUBLE SWEEP FLANGED TEES

4 x 4 x 2	6 x 6 x 3	10 x 10 x 6	10 x 10 x 4
6 x 6 x 5	8 x 8 x 6	10 x 10 x 5	.....

REDUCING FLANGED CROSSES

4 x 4 x 3 x 3	6 x 6 x 5 x 5	8 x 8 x 5 x 5	8 x 6 x 8 x 6
5 x 5 x 4 x 4	6 x 6 x 4 x 4	8 x 8 x 4 x 4	10 x 10 x 8 x 8
5 x 5 x 3 x 3	6 x 6 x 3 x 3	8 x 8 x 3 x 3	10 x 10 x 6 x 6
5 x 5 x 2½ x 2½	8 x 8 x 6 x 6	8 x 6 x 6 x 6	10 x 10 x 5 x 5

REDUCING FLANGED LATERALS

4 x 4 x 2½	8 x 8 x 6	10 x 10 x 6	10 x 8 x 8
6 x 6 x 4	8 x 6 x 6	10 x 10 x 5	.....
6 x 6 x 3	8 x 8 x 3	10 x 10 x 8	.....
6 x 6 x 2½			.....

These sizes, as listed above and on preceding page, with special reducing companion flanges, enable us to furnish about every variety of fittings required, except special angles, offsets, etc.

Reducing flanges are listed on another page. These flanges will always be the same thickness as the regular companion flanges of corresponding outside diameter.

The flanges are always drilled to the template corresponding to the outside diameter, unless otherwise ordered.

Customers who desire fittings reduced in this manner will please specify "REDUCE BY FLANGES IF NECESSARY."

PRICES OF SIZES NOT SHOWN

Sizes not covered in the list of sizes will be considered special, and made to order at the following advance in prices, according to the quantity of a size ordered at one time, viz.:

Add to the Regular List Prices of Reducing Flanged Fittings
the Percentage Advances Given Below

Size	One Piece	Two Pieces	Three Pieces	Four Pieces	Five Pieces	Six or More
3½-inch and Smaller	100%	80%	60%	40%	20%	No Advance
4 to 8-inch	50%	40%	30%	20%	10%	" "
9 " 10 "	25%	20%	15%	10%	5%	" "

Sizes 12-inch and larger, will be made to order in quantities of one or more of a size, at the regular list and discount.

EXTRA HEAVY FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

ELBOWS

45° ELBOWS



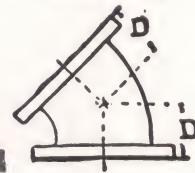
Fig. 36A

DIMENSIONS



Fig. 36B

DIMENSIONS



New Standard effective Jan. 1, 1915. Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH		
			With Faced Flanges	With Faced Flanges	*Drilled Flanges
1 1/4	5	4 1/4	4.50	5.40	
1 1/2	6	4 1/2	4.50	5.40	
2	6 1/2	5	4.50	5.40	
2 1/2	7 1/2	5 1/2	4.75	5.65	
3	8 1/4	6	5.15	6.25	
3 1/2	9	6 1/2	6.10	7.35	
4	10	7	6.75	8.25	
4 1/2	10 1/2	7 1/2	8.25	9.75	
5	11	8	9.35	10.85	
6	12 1/2	8 1/2	11.40	13.40	
7	14	9	15.75	18.00	
8	15	10	18.00	20.50	
9	16 1/4	10 1/2	25.50	28.85	
10	17 1/2	11 1/2	28.50	32.50	
12	20 1/2	13	42.00	46.50	
14	23	15	62.00	67.50	
15	24 1/2	15 1/2	70.00	77.00	
16	25 1/2	16 1/2	82.00	90.00	
18	28	18	106.00	115.00	
20	30 1/2	19 1/2	135.00	145.00	
22	33	20 1/2	170.00	183.00	
24	36	22 1/2	210.00	225.00	

*Flanges faced and drilled.

All extra heavy fittings and flanges have a raised surface for gaskets $\frac{1}{16}$ -inch high, inside of bolt holes.

Furnished faced only, unless otherwise ordered.

Larger sizes made to order. Prices upon application.

New Standard effective Jan. 1, 1915.

Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH		
			With Faced Flanges	With Faced Flanges	*Drilled Flanges
1 1/4	5	2 1/2	5.00	5.90	
1 1/2	6	2 3/4	5.00	5.90	
2	2	6 1/2	3	5.00	5.90
	2 1/2	7 1/2	3 1/2	5.25	6.15
	3	8 1/4	3 1/2	5.65	6.75
	3 1/2	9	4	6.75	8.00
	4	10	4 1/2	7.50	9.00
	4 1/2	10 1/2	4 1/2	9.00	10.50
	5	11	5	10.35	11.85
	6	12 1/2	5 1/2	12.50	14.50
	7	14	6	16.50	18.75
	8	15	6	19.00	21.50
	9	16 1/4	6 1/2	26.75	30.10
	10	17 1/2	7	30.00	34.00
	12	20 1/2	8	44.00	48.50
	14	23	8 1/2	62.00	67.50
	15	24 1/2	9	70.00	77.00
	16	25 1/2	9 1/2	82.00	90.00
	18	28	10	106.00	115.00
	20	30 1/2	10 1/2	135.00	145.00
	22	33	11	170.00	183.00
	24	36	12	210.00	225.00

*Flanges faced and drilled.

All extra heavy fittings and flanges have a raised surface for gaskets $\frac{1}{16}$ -inch high, inside of bolt holes. Bolt holes will be drilled $\frac{1}{8}$ -inch larger than diameter of bolts. Furnished faced only, unless otherwise ordered.

Larger sizes made to order. Prices upon application.

EXTRA HEAVY FLANGED FITTINGS FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

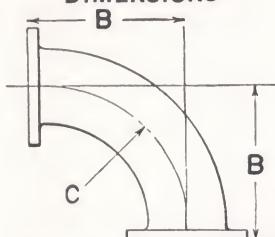
LONG RADIUS ELBOWS



Fig. 8623A

New standard effective Jan. 1, 1915.
Recommended by the American Society
of Mechanical Engineers, National Associa-
tion of Steam and Hot Water Fitters
and Manufacturers' Committee.

DIMENSIONS



Size Inches	Diam. of Flanges Inches	Center to Face, B Inches	Radius C Inches	PRICE, EACH	
				With Faced Flanges	With *Drilled Flanges
2	6 1/2	6 1/2	5 1/4	7.50	8.85
2 1/2	7 1/2	7	5 5/8	8.00	9.35
3	8 1/4	7 3/4	6 1/4	8.60	10.25
3 1/2	9	8 1/2	6 7/8	10.25	12.15
4	10	9	7 3/8	11.25	13.50
4 1/2	10 1/2	9 1/2	7 3/4	13.75	16.00
5	11	10 1/4	8 1/2	15.50	17.75
6	12 1/2	11 1/2	9 5/8	19.00	22.00
7	14	12 3/4	10 7/8	26.50	29.85
8	15	14	12	30.00	33.75
9	16 1/4	15 1/4	13	42.50	47.50
10	17 1/2	16 1/2	14 1/8	47.75	53.75
12	20 1/2	19	16 1/2	70.00	76.75
14	23	21 1/2	18 7/8	103.50	111.75
15	24 1/2	22 3/4	20	117.00	127.00
16	25 1/2	24	21 1/4	137.00	149.00

*Flanges faced and drilled.

Long radius Elbows of different dimensions from above. Furnished on order at a special price.

Faced only, unless otherwise ordered.

All extra heavy fittings and flanges have a raised surface for gaskets $\frac{1}{16}$ inch high, inside of bolt holes.

BASE ELBOWS, ROUND BASE

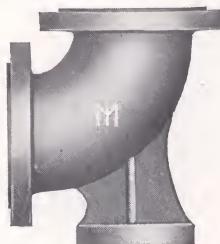


Fig. 8623B

Size In.	PRICE, EACH		
	Faced Except Base Flange	Faced and Drilled Except Base Flange	Facing and Drilling Base Flange
4	13.50	15.00	4.50
4 1/2	16.50	18.00	4.50
5	18.75	20.25	5.25
6	22.75	24.75	5.25
7	31.50	33.75	5.25
8	36.00	38.50	7.50
9	51.00	54.35	7.50
10	57.00	61.00	7.50
12	84.00	88.50	11.00
14	105.00	110.50	11.00
15	120.00	127.00	11.00
16	135.00	143.00	11.00

Base elbows are furnished faced only, as quoted, unless otherwise ordered.

Prices of base elbows larger than 16-inch quoted on application.

Size Inches	Diam. of *Flanges Inches	Center to Face Inches	Diam. Base Inches	Center to Face Base Flange Inches	
				†Flanges Inches	Base Flange Inches
4	10	7	6 1/2	7	7
4 1/2	10 1/2	7 1/2	6 1/2	7 1/4	7 1/2
5	11	8	7 1/2	7 1/2	7 1/2
6	12 1/2	8 1/2	7 1/2	8	7 1/2
7	14	9	7 1/2	8 3/4	8
8	15	10	10	9 1/4	10
9	16 1/4	10 1/2	10	10	10
10	17 1/2	11 1/2	10	10	10 1/2
12	20 1/2	13	12 1/2	11	12 1/2
14	23	15	12 1/2	14	12 1/2
15	24 1/2	15 1/2	12 1/2	14 1/2	12 1/2
16	25 1/2	16 1/2	12 1/2	15 1/4	12 1/2

*Port openings only, not base flange.

†The measurement across the flat edges of square base flange is the same as the diameter of the round base flange.

EXTRA HEAVY FLANGED FITTINGS

FOR STEAM WORKING PRESSURE UP TO 250 POUNDS

REDUCING TAPER ELBOWS



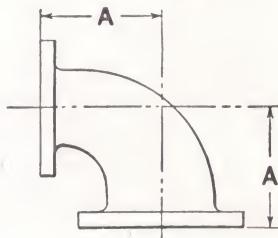
Fig. 6830A

New Standard effective Jan. 1, 1915.
Recommended by the American Society
of Mechanical Engineers, National Asso-
ciation of Steam and Hot Water Fitters
and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	With *Drilled Flanges
2 x1 1/4	6 1/2 x 5	5	9.00	9.90
2 x1 1/2	6 1/2 x 6	5	9.00	9.90
2 1/2 x1 1/2	7 1/2 x 6	5 1/2	9.50	10.40
2 1/2 x2	7 1/2 x 6 1/2	5 1/2	9.50	10.40
3 x1 1/2	8 1/4 x 6	6	10.25	11.35
3 x2	8 1/4 x 6 1/2	6	10.25	11.35
3 x2 1/2	8 1/4 x 7 1/2	6	10.25	11.35
3 1/2 x2	9 x 6 1/2	6 1/2	12.25	13.50
3 1/2 x2 1/2	9 x 7 1/2	6 1/2	12.25	13.50
3 1/2 x3	9 x 8 1/4	6 1/2	12.25	13.50
4 x2	10 x 6 1/2	7	13.50	15.00
4 x2 1/2	10 x 7 1/2	7	13.50	15.00
4 x3	10 x 8 1/4	7	13.50	15.00
4 x3 1/2	10 x 9	7	13.50	15.00
5 x2 1/2	11 x 7 1/2	8	18.75	20.25
5 x3	11 x 8 1/4	8	18.75	20.25
5 x4	11 x10	8	18.75	20.25
6 x3	12 1/2 x 8 1/4	8 1/2	22.75	24.75
6 x3 1/2	12 1/2 x 9	8 1/2	22.75	24.75
6 x4	12 1/2 x10	8 1/2	22.75	24.75
6 x4 1/2	12 1/2 x10 1/2	8 1/2	22.75	24.75
6 x5	12 1/2 x11	8 1/2	22.75	24.75
7 x4	14 x10	9	31.50	33.75
7 x5	14 x11	9	31.50	33.75
7 x6	14 x12 1/2	9	31.50	33.75
8 x4	15 x10	10	36.00	38.50
8 x5	15 x11	10	36.00	38.50
8 x6	15 x12 1/2	10	36.00	38.50
8 x7	15 x14	10	36.00	38.50
10 x5	17 1/2 x11	11 1/2	57.00	61.00

*Flanges faced and drilled.

Dimensions



Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	With *Drilled Flanges
10x 6	17 1/2 x12 1/2	11 1/2	57.00	61.00
10x 7	17 1/2 x14	11 1/2	57.00	61.00
10x 8	17 1/2 x15	11 1/2	57.00	61.00
12x 7	20 1/2 x14	13	84.00	88.50
12x 8	20 1/2 x15	13	84.00	88.50
12x 9	20 1/2 x16 1/4	13	84.00	88.50
12x10	20 1/2 x17 1/2	13	84.00	88.50
14x 6	23 x12 1/2	15	105.00	110.00
14x10	23 x17 1/2	15	105.00	110.00
14x12	23 x20 1/2	15	105.00	110.00
15x 6	24 1/2 x12 1/2	15 1/2	120.00	127.00
15x10	24 1/2 x17 1/2	15 1/2	120.00	127.00
15x12	24 1/2 x20 1/2	15 1/2	120.00	127.00
16x 8	25 1/2 x15	16 1/2	135.00	143.00
16x10	25 1/2 x17 1/2	16 1/2	135.00	143.00
16x12	25 1/2 x20 1/2	16 1/2	135.00	143.00
16x14	25 1/2 x23	16 1/2	135.00	143.00

*Flanges faced and drilled.

All extra heavy fittings and flanges have a raised surface, for gaskets $1\frac{1}{16}$ -inch high, inside of bolt holes. The bolt holes are drilled $1\frac{1}{8}$ -inch larger than the diameter of bolts and straddle the center line. Reducing elbows carry same dimensions center to face as regular elbows of largest straight size.

The bolt holes on extra heavy cast iron flanged fittings will not be spot faced unless so ordered, for which an extra charge will be made.

All extra heavy flanged fittings ordered to comply with the A. S. M. E. Boiler Code are furnished spot faced.

Flanged fittings will be furnished faced only, unless otherwise specified.

than diameter of bolts.
Bolt holes will be drilled $\frac{1}{8}$ -inch larger
upon application.

Larger sizes made to order. Prices
wise ordered.

Flanges made to order. Prices
upon application.
All extra heavy fittings and flanges have
a raised surface for gaskets $\frac{1}{8}$ inch high,
inside of bolt holes.

Flanges made to order. Prices
wise ordered.

Flanges made to order. Prices
upon application.

Flanges made to order. Prices
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upon application.

Flanges made to order. Prices
wise ordered.

Flanges made to order. Prices
upon application.



Fig. 8624D



Fig. 8624B



Fig. 8624C



Fig. 8624A

EXTRA HEAVY FLANGE FITTINGS

REDUCING SIDE OUTLET ELBOWS

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

For example: A 12x12x16-inch tee will be governed by the dimensions of the 16-inch long body tee (upper table), namely, 15 inches centre to face of all openings and 30 inches face to face of faceted only, unless otherwise specified. Larger sizes made to order. Prices upon application.

For variations from the standard sizes and larger dimensions, consult the catalog of the manufacturer.

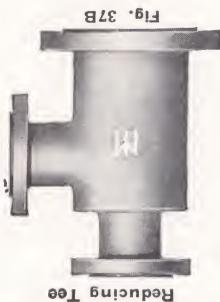
24 36 22½ 350.00 3/3.00

*Flanges faced and drilled.

STRAIGHT SIZES

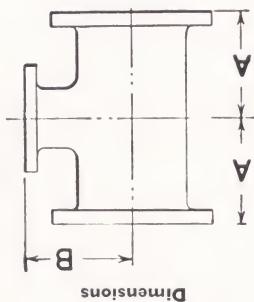
New Standard, effective Jan. 1, 1915. Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Filters and Manufacturers' Committee.

REDUCING IN RUN OR BRANCH REDUCING SIZES



FOR STEAM WORKING PRESSURE UP TO 250 POUNDS

EXTRA HEAVY FLANGED FITTINGS



Prices upon application.
Dimensions drawings should accompany
order or requests for prices.
Made to order only.
Prices upon application.
Dimensions drawings should accompany
order or requests for prices.
Made to order only.



Y BRANCHES



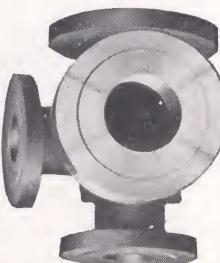
BASE TEES

All extra heavy fittings have a raised surface for gaskets $\frac{1}{8}$ inch high, inside of bolt holes.

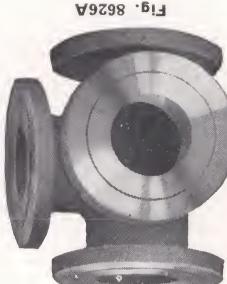
All extra heavy fittings have a raised surface for gaskets $\frac{1}{8}$ inch high, inside of bolt holes.

Size	Center Line	Diameter	Price, Each	Flanges	Flanges, With Flange	Flanges, With Flange and Parallel Face	Flanges, With Face and Parallel Face	Flanges, With Face and Flange	Flanges, With Face and Flange and Parallel Face
4	10	42.00	45.00	4	10	7	47.00	50.00	50.00
5	11	47.00	50.00	5	11	8	52.00	55.00	55.00
6	12 $\frac{1}{2}$	53.50	57.50	6	12 $\frac{1}{2}$	9 $\frac{1}{2}$	59.00	63.00	63.00
7	14	63.00	67.50	7	14	9	70.00	75.00	75.00
8	15	72.50	77.50	8	15	10	80.00	85.00	85.00
9	17 $\frac{1}{2}$	102.00	110.00	10	17 $\frac{1}{2}$	13	112.00	120.00	120.00
10	20 $\frac{1}{2}$	131.00	140.00	11	20 $\frac{1}{2}$	15	146.00	155.00	155.00
11	23	159.00	170.00	12	23	15	174.00	185.00	185.00
12	26 $\frac{1}{2}$	190.00	204.00	13	26 $\frac{1}{2}$	16 $\frac{1}{2}$	204.00	220.00	220.00
13	28	220.00	234.00	14	28	15	234.00	250.00	250.00
14	31	250.00	264.00	15	31	16 $\frac{1}{2}$	264.00	280.00	280.00
15	34	280.00	294.00	16	34	16 $\frac{1}{2}$	294.00	310.00	310.00

Fig. 8626C



REDUCING SIDE OUTLET TEES



SIDE OUTLET TEES

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

EXTRA HEAVY FLANGED FITTINGS

EXTRA HEAVY FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

CROSSES

DIMENSIONS REDUCING

STRAIGHT

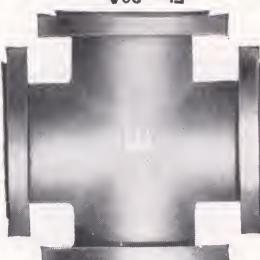
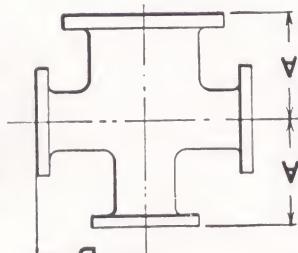


Fig. 38A.



DIMENSIONS

2015 © GMA



REDUCING SIZES

Fig. 38B

New Standard, effective Jan. 1, 1953. Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Filters. Classification of Steam and Hot Water Filters.

STRAIGHT

Recommended by the American Society of Mechanical Engineers, National Association of Manufactures, Engineers and Managers Committee, and Manufacturers' Filters and Manufacturers' Committee.

- *Planes faced and drilled.
- Crosses, sizes 18 inches and larger, re-drilled on the outside, made in two lengths, depending on the outside, made in two diameters, holes are drilled $\frac{1}{8}$ inch larger than the bolts.
- Boat holes are drilled $\frac{1}{8}$ inch larger than the bolts.
- Sizes of all fittings scheduled, indicates the inside diameter of ports.
- Supplied faced only, unless otherwise specified on order.
- Larger sizes furnished to order. Prices upon application.

• All ranges face and drill. All ranges take the same center to face dimensions as straight size crosses. All crosses, reducing on the run only, take the same dimensions as straight size crosses. All crosses, reducing face and drill in order, take the same dimensions, center to face, as the larger finished faced size.

16	250 ^{1/2}	16 ^{1/2}	150 ⁰⁰	150 ⁰⁰	*Flanges faced and drilled.
18	25 ^{1/2}	25 ^{1/2}	25 ⁰⁰	25 ⁰⁰	
20	30 ^{1/2}	19 ^{1/2}	300 ⁰⁰	320 ⁰⁰	Crosses, sizes 18 inches and larger, re-
22	33	20 ^{1/2}	375 ⁰⁰	401 ⁰⁰	drumgates, depending on the size of the outlet.
24	36	22 ^{1/2}	465 ⁰⁰	495 ⁰⁰	longgates, depending on two sizes of the outlet.

C REDUCERS

Recent Tie Tapers Reduces Firms' Special Order Prices Upon Application.

*Flanges faced and drilled.

New Standard, effective Jan. 1, 1913. Recommended by the American Society of Mechanical Engineers, National Association of Engineers and Hot Water Filters of Mechanic L. Higginson, et al.

Fig. 296B



ECCENTRIC

1APER REDUCERS

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

EXTRA HEAVY FLANGED FITTINGS

ILLINOIS MALLEABLE IRON CO.

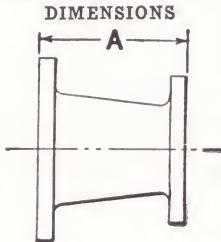
EXTRA HEAVY FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

TAPER REDUCERS



Fig. 296A



ECCENTRIC

New Standard, effective Jan. 1, 1915. Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Face to Flanges Inches	Face of Flanges Inches	PRICE, EACH	
				With Faced Flanges	With *Drilled Flanges
3 x 2	8 1/4	6 1/2	6	10.25	11.35
3 1/2 x 2 1/2	9	7 1/2	6 1/2	12.25	13.50
4 x 2	10	x 6 1/2	7	13.50	15.00
4 x 2 1/2	10	x 7 1/2	7	13.50	15.00
4 x 3	10	x 8 1/4	7	13.50	15.00
5 x 2	11	x 6 1/2	8	18.75	20.25
5 x 2 1/2	11	x 7 1/2	8	18.75	20.25
5 x 3	11	x 8 1/4	8	18.75	20.25
5 x 4	11	x 10	8	18.75	20.25
6 x 3	12 1/2	x 8 1/4	9	22.75	24.75
6 x 3 1/2	12 1/2	x 9	9	22.75	24.75
6 x 4	12 1/2	x 10	9	22.75	24.75
6 x 5	12 1/2	x 11	9	22.75	24.75
7 x 3	14	x 8 1/4	10	31.50	33.75
7 x 4	14	x 10	10	31.50	33.75
7 x 5	14	x 11	10	31.50	33.75
7 x 6	14	x 12 1/2	10	31.50	33.75
8 x 3	15	x 8 1/4	11	36.00	38.50
8 x 4	15	x 10	11	36.00	38.50
8 x 5	15	x 11 1/2	11	36.00	38.50
8 x 6	15	x 12 1/2	11	36.00	38.50
10 x 4	17 1/2	x 10	12	57.00	61.00
10 x 5	17 1/2	x 11	12	57.00	61.00
10 x 6	17 1/2	x 12 1/2	12	57.00	61.00
10 x 8	17 1/2	x 15	12	57.00	61.00
12 x 5	20 1/2	x 11	14	84.00	88.50
12 x 6	20 1/2	x 12 1/2	14	84.00	88.50
12 x 8	20 1/2	x 15	14	84.00	88.50
12 x 10	20 1/2	x 17 1/2	14	84.00	88.50
14 x 6	23	x 12 1/2	16	105.00	110.50
14 x 8	23	x 15	16	105.00	110.50
14 x 10	23	x 17 1/2	16	105.00	110.50
14 x 12	23	x 20 1/2	16	105.00	110.50

*Flanges faced and drilled.

Size Inches	Diam. of Flanges Inches	Face to Flanges Inches	PRICE, EACH	
			With Faced Flanges	With *Drilled Flanges
15 x 8	24 1/2	x 15	17	120.00 127.00
15 x 10	24 1/2	x 17 1/2	17	120.00 127.00
15 x 12	24 1/2	x 20 1/2	17	120.00 127.00
15 x 14	24 1/2	x 23	17	120.00 127.00
16 x 8	25 1/2	x 15	18	135.00 143.00
16 x 10	25 1/2	x 17 1/2	18	135.00 143.00
16 x 12	25 1/2	x 20 1/2	18	135.00 143.00
16 x 14	25 1/2	x 23	18	135.00 143.00
18 x 10	28	x 17 1/2	19	157.00 166.00
18 x 12	28	x 20 1/2	19	157.00 166.00
18 x 14	28	x 23	19	157.00 166.00
18 x 16	28	x 25 1/2	19	157.00 166.00
20 x 12	30 1/2	x 20 1/2	20	180.00 190.00
20 x 14	30 1/2	x 23	20	180.00 190.00
20 x 16	30 1/2	x 25 1/2	20	180.00 190.00
20 x 18	30 1/2	x 28	20	180.00 190.00
22 x 14	33	x 23	22	225.00 238.00
22 x 16	33	x 25 1/2	22	225.00 238.00
22 x 18	33	x 28	22	225.00 238.00
22 x 20	33	x 30 1/2	22	225.00 238.00
24 x 16	36	x 25 1/2	24	285.00 300.00
24 x 18	36	x 28	24	285.00 300.00
24 x 20	36	x 30 1/2	24	285.00 300.00
24 x 22	36	x 33	24	285.00 300.00

*Flanges faced and drilled.

Bolt holes will be drilled $1\frac{1}{8}$ -inch larger in diameter than the diameter of the bolts. Bolt holes will always straddle center line. The face to face dimensions, standard or eccentric, will be the same.

Flanged taper reducers of any other dimensions on special order.

Furnished faced only, unless otherwise specified on order.

ECCENTRIC REDUCERS

Eccentric Taper Reducers furnished upon special order. Prices upon application.

EXTRA HEAVY FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

SINGLE SWEEP TEES



Fig. 18A

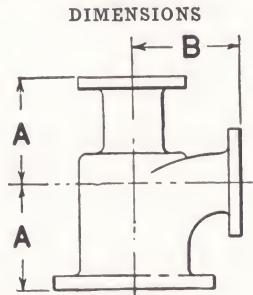


Fig. 18B

New Standard, effective Jan. 1, 1915.
Recommended by the American Society of Mechanical Engineers, National Association of Steam and Hot Water Fitters and Manufacturers' Committee.

STRAIGHT SIZES

Size Inches	Diam. Flanges Inches		Center to Face Inches		PRICE, EACH	
	With Flanges	With Faced Flanges	With Faced Flanges	*With Flanges	With Faced Flanges	*With Flanges
2	6 1/2	5	7.50	8.85	3 1/2	6.50
2 1/2	7 1/2	5 1/2	8.00	9.35	2 1/2	7 1/2
3	8 1/4	6	8.60	10.25	3	8 1/4
3 1/2	9	6 1/2	10.25	12.15	4	10
4	10	7	11.25	13.50	4 1/2	10 1/2
4 1/2	10 1/2	7 1/2	13.75	16.00	5	11
5	11	8	15.50	17.75	6	12 1/2
6	12 1/2	8 1/2	19.00	22.00	7	14
7	14	9	26.50	29.85	8	15
8	15	10	30.00	33.75	9	16 1/4
9	16 1/4	10 1/2	42.50	47.50	10	17 1/2
10	17 1/2	11 1/2	47.75	53.75	12	20 1/2
12	20 1/2	13	70.00	76.75	14	23
14	23	15	103.50	111.75	15	24 1/2
15	24 1/2	15 1/2	117.00	127.00	16	25 1/2
16	25 1/2	16 1/2	137.00	149.00	18	28
18	28	18	177.00	191.00	20	30 1/2
20	30 1/2	19 1/2	225.00	240.00	22	33
22	33	20 1/2	285.00	305.00	24	36
24	36	22 1/2	350.00	373.00		

*Flanges faced and drilled.

All reducing tees, 16 inches and smaller, take the same center to face dimensions as straight size tees, all tees reducing on the run only, take the same dimensions, center to face, as the largest straight size tees, sizes 18 inches and larger, and reducing on the outlet, are made in two lengths, depending on the size of the reduced outlet.

REDUCING SIZES

Reducing in run or branch.

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH With Faced Flanges	*With Flanges
2	6 1/2	5	8.50	9.95
2 1/2	7 1/2	5 1/2	9.15	10.50
3	8 1/4	6	9.90	11.55
4	10	7	13.00	15.25
4 1/2	10 1/2	7 1/2	15.75	18.00
5	11	8	17.85	20.10
6	12 1/2	8 1/2	22.00	25.00
7	14	9	30.50	33.85
8	15	10	34.50	38.25
9	16 1/4	10 1/2	49.00	54.00
10	17 1/2	11 1/2	55.00	61.00
12	20 1/2	13	80.00	86.75
14	23	15	119.00	127.25
15	24 1/2	15 1/2	135.00	145.00
16	25 1/2	16 1/2	158.00	170.00
18	28	18	204.00	218.00
20	30 1/2	19 1/2	260.00	275.00
22	33	20 1/2	327.00	347.00
24	36	22 1/2	402.00	425.00

*Flanges faced and drilled.

Reducing single sweep tees made to order only. Single sweep tees with the side openings larger than the run are not made.

Bullheads or tees having outlet larger than the run will be the same length center to face of all openings as a tee with all openings of the size of the outlet.

Furnished faced only, unless otherwise specified on order.

Larger sizes, furnished to order. Prices upon application.

EXTRA HEAVY FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

DOUBLE SWEEP TEES



Fig. 9929A

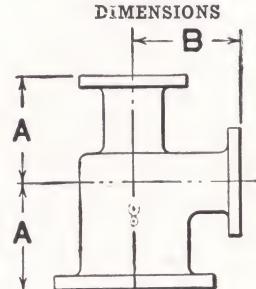


Fig. 9929B

New Standard effective Jan. 1 1915.
Recommended by the American Society
of Mechanical Engineers, National Association
of Steam and Hot Water Fitters
and Manufacturers' Committee.

STRAIGHT SIZES

Size Inches	Diam. of Flanges		Center to Face		PRICE, EACH	
	Inches	Inches	With Faced Flanges	With *Drilled Flanges	With Faced Flanges	With *Drilled Flanges
2	6 1/2	5	7.50	8.85	2	8.60
2 1/2	7 1/2	5 1/2	8.00	9.35	2 1/2	9.15
3	8 1/4	6	8.60	10.25	3	9.90
3 1/2	9	6 1/2	10.25	12.15	3 1/2	11.75
4	10	7	11.25	13.50	4	13.00
4 1/2	10 1/2	7 1/2	13.75	16.00	4 1/2	15.75
5	11	8	15.50	17.75	5	17.85
6	12 1/2	8 1/2	19.00	22.00	6	22.00
7	14	9	26.50	29.85	6 1/2	25.00
8	15	10	30.00	33.75	7	30.50
9	16 1/4	10 1/2	42.50	47.50	7 1/2	34.50
10	17 1/2	11 1/2	47.75	53.75	8	38.25
12	20 1/2	13	70.00	76.75	9	49.00
14	23	15	103.50	111.75	10	55.00
15	24 1/2	15 1/2	117.00	127.00	10 1/2	61.00
16	25 1/2	16 1/2	137.00	149.00	11	80.00
18	28	18	177.00	191.00	12	86.75
20	30 1/2	19 1/2	225.00	240.00	13	119.00
22	33	20 1/2	285.00	305.00	14	127.25
24	36	22 1/2	350.00	373.00	15	135.00

*Flanges faced and drilled.

All reducing tees reducing on the outlet, 16 inches and smaller, take the same center to face dimensions as straight size tees.

All tees reducing on the run only, take the same dimensions, center to face, as the next largest straight size.

Furnished faced only, unless otherwise specified on order.

REDUCING SIZES
REDUCING IN BRANCH ONLY

Size Inches	Diam. of Flanges Inches	Center to Face Inches	PRICE, EACH	
			With Faced Flanges	*With *Drilled Flanges
2	6 1/2	5	8.60	9.95
2 1/2	7 1/2	5 1/2	9.15	10.50
3	8 1/4	6	9.90	11.55
3 1/2	9	6 1/2	11.75	13.65
4	10	7	13.00	15.25
4 1/2	10 1/2	7 1/2	15.75	18.00
5	11	8	17.85	20.10
6	12 1/2	8 1/2	22.00	25.00
7	14	9	30.50	33.85
8	15	10	34.50	38.25
9	16 1/4	10 1/2	49.00	54.00
10	17 1/2	11 1/2	55.00	61.00
12	20 1/2	13	80.00	86.75
14	23	15	119.00	127.25
15	24 1/2	15 1/2	135.00	145.00
16	25 1/2	16 1/2	158.00	170.00
18	28	18	204.00	218.00
20	30 1/2	19 1/2	260.00	275.00
22	33	20 1/2	327.00	347.00
24	36	22 1/2	402.00	425.00

*Flanges faced and drilled.

Tees, sizes 18 inches and larger, reducing on the outlet, are made in two lengths, each depending on the size of outlet.

Double sweep tees are not made reducing on the run. Should such tees, however be wanted, the patterns can be altered (which will be expensive) and charge at a special price.

The branch (outlet) can only be increased within a reasonable limit, which must be regulated by the patterns.

EXTRA HEAVY COMPANION AND BLIND FLANGES

FOR STEAM WORKING PRESSURES UP TO 250 POUNDS

AMERICAN STANDARD—EFFECTIVE JAN. 1, 1915

COMPANION FLANGES

Back View, Showing Hub



Fig. 8632A



Fig. 8632B

CAST IRON BLIND FLANGES

16-inch O. D. and Smaller



Fig. 8632C

17½-inch O. D. and Larger



Fig. 8632D

Size Inches	CAST IRON PRICE, EACH		MALLEABLE IRON PRICE, EACH	
	Faced	and Drilled	Faced	and Drilled
1 x 4½	.95	1.30	....	....
1¼ x 5	1.00	1.35	....	....
1½ x 6	1.10	1.45	2.20	2.90
2 x 6½	1.25	1.60	2.50	3.20
2½ x 7½	1.40	1.75	2.80	3.50
3 x 8½	1.60	2.05	3.20	4.10
3½ x 9	2.00	2.55	4.00	5.10
4 x 10	2.25	2.95	4.50	5.90
4½ x 10½	2.40	3.10	4.80	6.20
5 x 11	2.65	3.35	5.30	6.70
6 x 12½	3.30	4.05	6.60	8.10
7 x 14	4.40	5.30	8.80	10.60
8 x 15	5.10	6.15	10.20	12.30
9 x 16½	6.30	7.50	12.60	15.00
10 x 17½	7.40	8.90	14.80	17.80
12 x 20½	10.75	12.50	21.50	25.00
14 x 23	15.00	17.00	30.00	34.00
15 x 24½	19.00	21.50	38.00	43.00
16 x 25½	22.25	25.00	44.50	50.00
18 x 28	26.00	29.00	....	....
20 x 30½	31.00	35.00	....	....
22 x 33	36.00	41.00	....	....
24 x 36	45.00	50.00	....	....

Size Inches	PRICE, EACH	
	Faced	and Drilled
1½ x 6	1.65	2.00
2 x 6½	1.90	2.25
2½ x 7½	2.10	2.45
3 x 8½	2.40	2.85
3½ x 9	3.00	3.55
4 x 10	3.35	4.05
4½ x 10½	3.60	4.30
5 x 11	4.00	4.70
6 x 12½	5.00	5.75
7 x 14	6.60	7.50
8 x 15	7.65	8.70
9 x 16½	9.50	10.70
10 x 17½	11.00	12.50
12 x 20½	16.00	17.75
14 x 23	22.50	24.50
15 x 24½	28.50	31.00
16 x 25½	33.50	36.25
18 x 28	39.00	42.00
20 x 30½	46.00	50.00
22 x 33	54.00	59.00
24 x 36	67.00	72.00

All flanges faced but not drilled unless otherwise ordered.

Spot facing bolt holes, price 10 cents per hole.

Sizes 14 inches and larger are tapped to be used with outside diameter pipe of the same size.

All flanges faced but not drilled unless otherwise specified.

ECCENTRIC FLANGES

Made to order only.

Prices upon application.

All extra heavy flanges have a raised surface for gaskets $\frac{1}{16}$ -inch high, inside of bolt holes.

EXTRA HEAVY REDUCING COMPANION FLANGES WITH RIBS

FOR EXTRA HEAVY FLANGED VALVES AND FITTINGS
FOR STEAM WORKING PRESSURES UP TO 250 POUNDS



Fig. 8634A

These flanges, used in connection with straight or reducing fittings, enable us to fill orders more promptly. Customers who desire fittings reduced in this manner will please specify "Reduce by Flanges if Necessary."

These flanges will always be of the same thickness as the regular companion flanges of corresponding outside diameters, and drilled to the template corresponding to the outside diameter, unless otherwise ordered.

In ordering reducing companion flanges always give the screwed or reduced size first, then the outside diameter of flange wanted; for instance, if a reducing flange is wanted to connect a 6-inch pipe to a 9-inch flanged valve or fitting having a 16½-inch O.D. flange, order a 6x16½-inch reducing flange. This will clearly avoid the confusion often caused by orders incorrectly calling for 9x6 or a 6x9-inch flange.

New standard effective January 1, 1915. Recommended by the American Society of Mechanical Engineers, National Association of Master Steam and Hot Water Fitters and Manufacturers Committee.

Size In.	PRICE, EACH Faced and Drilled		Size In.	PRICE, EACH Faced and Drilled	
	1½x6	1.80 2.15	1½x10	3.70 4.40	
1½x6½	2.10	2.45	2x10	3.70 4.40	
1½x7½	2.30	2.65	2½x10	3.70 4.40	
2 x7½	2.30	2.65	3x10	3.70 4.40	
2½x8½	2.65	3.10	3½x10	3.70 4.40	
2 x8½	2.65	3.10	1½x10½	4.00 4.70	
2½x8½	2.65	3.10	2 x10½	4.00 4.70	
1½x9	3.30	3.85	2½x10½	4.00 4.70	
2 x9	3.30	3.85	3 x10½	4.00 4.70	
2½x9	3.30	3.85	3½x10½	4.00 4.70	
3 x9	3.30	3.85	4 x10½	4.00 4.70	

All extra heavy flanges have a raised surface for gaskets $\frac{1}{16}$ -inch high, inside of bolt holes.

Size In.	PRICE, EACH Faced and Drilled		Size In.	PRICE, EACH Faced and Drilled	
1½x11	4.40	5.10	5 x17½	12.00	13.50
2 x11	4.40	5.10	6 x17½	12.00	13.50
2½x11	4.40	5.10	7 x17½	12.00	13.50
3x11	4.40	5.10	8 x17½	12.00	13.50
3½x11	4.40	5.10	9 x17½	12.00	13.50
4x11	4.40	5.10	2½x20½	17.50	19.25
4½x11	4.40	5.10	3 x20½	17.50	19.25
1½x12½	5.50	6.25	3½x20½	17.50	19.25
2 x12½	5.50	6.25	4 x20½	17.50	19.25
2½x12½	5.50	6.25	5 x20½	17.50	19.25
3 x12½	5.50	6.25	6 x20½	17.50	19.25
4 x12½	5.50	6.25	7 x20½	17.50	19.25
4½x12½	5.50	6.25	8 x20½	17.50	19.25
5 x12½	5.50	6.25	9 x20½	17.50	19.25
2x14	7.25	8.15	10x20½	17.50	19.25
2½x14	7.25	8.15	6x23	25.00	27.00
3x14	7.25	8.15	8x23	25.00	27.00
3½x14	7.25	8.15	9x23	25.00	27.00
4x14	7.25	8.15	10x23	25.00	27.00
4½x14	7.25	8.15	12x23	25.00	27.00
5 x14	7.25	8.15	8x24½	31.50	34.00
6 x14	7.25	8.15	10x24½	31.50	34.00
1½x15	8.40	9.45	12x24½	31.50	34.00
2 x15	8.40	9.45	14x24½	31.50	34.00
2½x15	8.40	9.45	10x25½	37.00	39.75
3 x15	8.40	9.45	12x25½	37.00	39.75
3½x15	8.40	9.45	14x25½	37.00	39.75
4x15	8.40	9.45	15x25½	37.00	39.75
4½x15	8.40	9.45	12x28	43.00	46.00
5x15	8.40	9.45	14x28	43.00	46.00
6x15	8.40	9.45	15x28	43.00	46.00
7x15	8.40	9.45	16x28	43.00	46.00
3 x16½	10.50	11.70	14x30½	51.00	55.00
4 x16½	10.50	11.70	15x30½	51.00	55.00
5 x16½	10.50	11.70	16x30½	51.00	55.00
6 x16½	10.50	11.70	18x30½	51.00	55.00
7 x16½	10.50	11.70	16x33	60.00	65.00
8 x16½	10.50	11.70	18x33	60.00	65.00
2 x17½	12.00	13.50	20x33	60.00	65.00
2½x17½	12.00	13.50	18x36	74.00	79.00
3 x17½	12.00	13.50	20x36	74.00	79.00
4 x17½	12.00	13.50	.....	.....	.....

Furnished faced only, unless otherwise ordered.

Sizes 14 inches and larger are tapped to be used with 14-inch outside diameter pipe of the same sizes.

Spot facing bolt holes, price, 10 cents per hole.

TEMPLATES AND PRICES FOR DRILLING EXTRA HEAVY FLANGED VALVES AND FITTINGS



Fig. 8685A

SIZES, 1-INCH TO 48-INCH INCLUSIVE

These drilling templates are in multiples of four, so that fittings may be made to face in any quarter, and bolt holes straddle the center line. They can be drilled to any other template, if so desired.

Bolt holes are drilled $\frac{1}{8}$ inch larger than nominal diameter of bolts, except that brass valves and fittings, 6-inch and smaller, have holes $\frac{1}{16}$ inch larger than the bolts.

New Standard, Effective January 1, 1915

Recommended by the American Society of Mechanical Engineers, National Association of Master Steam and Hot Water Fitters and Manufacturers' Committee.

Size Inches	Diam. of Flanges Inches	Thickness of Flanges Inches	Bolt Circle Inches	No. of Bolts	Size of Bolts Inches	Bolt Lengths Inches	PRICE, EACH, FOR DRILLING			
							With Two Flanges Except Angle Valves	Angle Valves	Cross Valves	
1	4 1/2	11/16	3 1/4	4	1/2	2	.60	1.00	1.20	
1 1/4	5	3/4	3 3/4	4	1/2	2 1/4	.60	1.00	1.20	
1 1/2	6	13/16	4 1/2	4	5/8	2 1/2	.60	1.00	1.20	
2	6 1/2	7/8	5	4	5/8	2 1/2	.75	1.25	1.50	
2 1/2	7 1/2	1	5 7/8	4	3/4	3	.75	1.25	1.50	
3	8 1/4	1 1/8	6 5/8	8	3/4	3 1/4	.75	1.25	1.50	
3 1/2	9	1 3/16	7 1/4	8	3/4	3 1/4	1.00	1.50	2.00	
4	10	1 1/4	7 7/8	8	3/4	3 1/2	1.25	1.75	2.50	
4 1/2	10 1/2	1 5/16	8 1/2	8	3/4	3 1/2	1.50	2.00	3.00	
5	11	1 3/8	9 1/4	8	3/4	3 3/4	1.50	2.00	3.00	
6	12 1/2	1 1/16	10 5/8	12	3/4	3 3/4	1.75	2.50	3.50	
7	14	1 1/2	11 1/8	12	7/8	4	2.25	3.00	4.50	
8	15	1 5/8	13	12	7/8	4 1/4	2.25	3.00	4.50	
9	16 1/4	1 3/4	14	12	1	4 3/4	2.50	3.50	5.00	
10	17 1/2	1 1/8	15 1/4	16	1	5	2.50	3.50	5.00	
12	20 1/2	2	17 3/4	16	1 1/8	5 1/2	3.50	5.00	7.00	
14	23	2 1/8	20 1/4	20	1 1/8	5 3/4	4.00	6.00	8.00	
15	24 1/2	2 3/16	21 1/2	20	1 1/4	6	4.50	6.50	9.00	
16	25 1/2	2 1/4	22 1/2	20	1 1/4	6	5.00	7.00	...	
18	28	2 3/8	24 3/4	24	1 1/4	6 1/4	6.00	...	...
20	30 1/2	2 1/2	27	24	1 3/8	6 3/4	7.50	...	...
22	33	2 5/8	29 1/4	24	1 1/2	7	9.00	...	...
24	36	2 3/4	32	24	1 5/8	7 1/2	10.00	...	...
26	38 1/4	2 13/16	34 1/2	28	1 5/8	8	...	...	...
28	40 3/4	2 5/16	37	28	1 5/8	8	...	...	...
30	43	3	39 1/4	28	1 3/4	8 1/2	12.00	...	...
32	45 1/4	3 1/8	41 1/2	28	1 7/8	9	...	...	...
34	47 1/2	3 1/4	43 1/2	28	1 7/8	9	...	...	...
36	50	3 3/8	46	32	1 7/8	9 1/2	...	...	...
38	52 1/4	3 7/16	48	32	1 7/8	9 1/2	...	...	...
40	54 1/2	3 9/16	50 1/4	36	1 7/8	10	...	...	...
42	57	3 9/16	52 3/4	36	1 7/8	10	...	...	...
44	59 1/4	3 3/4	55	36	2	10 1/2	...	...	...
46	61 1/2	3 7/8	57 1/4	40	2	10 1/2	...	...	...
48	65	4	60 3/4	40	2	11	...	...	...

EXTRA HEAVY FLANGED FITTINGS AND FLANGES

EXTRA PRICE FOR GALVANIZING

Galvanized Extra Heavy, Cast Iron Flanged Fittings will be made to order at an advance over the black price as below.

Size In.	Flanged Taper Reducers	Flanged Elbows	Reducing Flanged Elbows	Flanged 45° Elbows	Size In.	Flanged Long Radius Elbows	Flanged Base Elbows	Flanged Tees	Flanged Reducing Tees
1 1/4	3.00	3.00	3.00	3.00	1 1/4	4.50	4.50	4.50	4.50
1 1/2	3.00	3.00	3.00	3.00	1 1/2	4.50	4.50	4.50	4.50
2	3.00	3.00	3.00	3.00	2	4.50	4.50	4.50	4.50
2 1/2	3.10	3.10	3.10	3.10	2 1/2	4.65	4.65	4.65	4.65
3	3.50	3.50	3.50	3.50	3	5.25	5.25	5.25	5.25
3 1/2	4.10	4.10	4.10	4.10	3 1/2	6.15	6.15	6.15	6.15
4	4.50	4.50	4.50	4.50	4	6.75	6.75	6.75	6.75
4 1/2	5.50	5.50	5.50	5.50	4 1/2	8.25	8.25	8.25	8.25
5	6.00	6.00	6.00	6.00	5	9.00	9.00	9.00	9.00
6	7.50	7.50	7.50	7.50	6	11.25	11.25	11.25	11.25
7	10.00	10.00	10.00	10.00	7	15.00	15.00	15.00	15.00
8	11.25	11.25	11.25	11.25	8	16.75	16.75	16.75	16.75
9	16.00	16.00	16.00	16.00	9	24.00	24.00	24.00	24.00
10	18.00	18.00	18.00	18.00	10	27.00	27.00	27.00	27.00
12	26.00	26.00	26.00	26.00	12	39.00	39.00	39.00	39.00
14	37.50	37.50	37.50	37.50	14	56.00	56.00	56.00	56.00
15	44.00	44.00	44.00	44.00	15	66.00	66.00	66.00	66.00
16	50.00	50.00	50.00	50.00	16	75.00	75.00	75.00	75.00

Size In.	Flanged Crosses	Reducing Flanged Crosses	Flanged Laterals	Reducing Flanged Laterals]	Size In.	Compan- ion Flanges	REDUCING COMPANION FLANGES		BLIND FLANGES	
							Diam. In.	Price Each	Diam. In.	Price Each
1 1/4	6.00	6.00	6.00	6.00	1 1/4	.85	...	...	...	...
1 1/2	6.00	6.00	6.00	6.00	1 1/2	.85	6	1.25	6	1.25
2	6.00	6.00	6.00	6.00	2	1.00	6 1/2	1.50	6 1/2	1.50
2 1/2	6.25	6.25	6.25	6.25	2 1/2	1.05	7 1/2	1.60	7 1/2	1.60
3	7.00	7.00	7.00	7.00	3	1.15	8 1/4	1.75	8 1/4	1.75
3 1/2	8.25	8.25	8.25	8.25	3 1/2	1.40	9	2.10	9	2.10
4	9.00	9.00	9.00	9.00	4	1.65	10	2.50	10	2.50
4 1/2	11.00	11.00	11.00	11.00	4 1/2	1.75	10 1/2	2.65	10 1/2	2.65
5	12.00	12.00	12.00	12.00	5	1.90	11	2.85	11	2.85
6	15.00	15.00	15.00	15.00	6	2.30	12 1/2	3.50	12 1/2	3.50
7	20.00	20.00	20.00	20.00	7	3.00	14	4.50	14	4.50
8	22.50	22.50	22.50	22.50	8	3.50	15	5.25	16	5.25
9	32.00	32.00	32.00	32.00	9	4.15	16 1/4	6.25	16 1/4	6.25
10	36.00	36.00	36.00	36.00	10	5.25	17 1/2	8.00	17 1/2	8.00
12	52.00	52.00	52.00	52.00	12	7.00	20 1/2	10.50	20 1/2	10.50
14	75.00	75.00	75.00	75.00	14	10.00	23	15.00	23	15.00
15	88.00	88.00	88.00	88.00	15	12.50	24 1/2	19.00	24 1/2	19.00
16	100.00	100.00	100.00	100.00	16	15.00	25 1/2	22.50	25 1/2	22.50

COMPANION FLANGES

EXTRA FOR FACING EXTRA HEAVY COMPANION FLANGES

Male Face



Fig. 8636A

Tongued Face



Fig. 8636B

Raised Face



Fig. 8636C

Female Face



Fig. 8636D

Grooved Face



Fig. 8636E



Fig. 8636F

Size In.	Male or Female Face	Tongued or Grooved Face	$\frac{1}{8}$ -inch Raised Face for Calking Recess	For Calking Recess	Size In.	Male or Female Face	Tongued or Grooved Face	$\frac{1}{8}$ -inch Raised Face for Calking Recess	For Calking Recess
1 x 4 $\frac{1}{2}$	1.75	1.75	1.75	1.75	8x15	3.60	3.60	3.60	3.60
1 $\frac{1}{4}$ x 5	1.75	1.75	1.75	1.75	9x16 $\frac{1}{4}$	3.60	3.60	3.60	3.60
1 $\frac{1}{2}$ x 6	1.75	1.75	1.75	1.75	10x17 $\frac{1}{2}$	3.60	3.60	3.60	3.60
2 x 6 $\frac{1}{2}$	1.75	1.75	1.75	1.75	12x20 $\frac{1}{2}$	4.50	4.50	4.50	4.50
2 $\frac{1}{2}$ x 7 $\frac{1}{2}$	2.35	2.35	2.35	2.35	14x23	5.75	5.75	5.75	5.75
3 x 8 $\frac{1}{4}$	2.35	2.35	2.35	2.35	15x24 $\frac{1}{2}$	5.75	5.75	5.75	5.75
3 $\frac{1}{2}$ x 9	2.35	2.35	2.35	2.35	16x25 $\frac{1}{2}$	7.15	7.15	7.15	7.15
4 x 10	2.35	2.35	2.35	2.35	18x28	9.00	9.00	9.00	9.00
4 $\frac{1}{2}$ x10 $\frac{1}{2}$	2.35	2.35	2.35	2.35	20x30 $\frac{1}{2}$	10.85	10.85	10.85	10.85
5 x 11	2.35	2.35	2.35	2.35	22x33	14.35	14.35	14.35	14.35
6 x12 $\frac{1}{2}$	2.85	2.85	2.85	2.85	24x36	18.00	18.00	18.00	18.00
7 x14	2.85	2.85	2.85	2.85					

EXTRA FOR ATTACHING COMPANION FLANGES
STANDARD AND EXTRA HEAVY

Fig. 8636G

EXTRA FOR FURNISHING AND
BOLTING ON WOODEN
PROTECTORS
STANDARD AND EXTRA HEAVY

Fig. 8636H

Size Inches.	Price Labor only	Size Inches	Price Labor only	Size Inches	Price, Inc. Two Bolts Each Flange	Size Inches	Price, Inc. Two Bolts, Each Flange
1 $\frac{1}{4}$	.35	8	.55	1 $\frac{1}{4}$	.75	8	1.15
1 $\frac{1}{2}$	.35	9	.75	1 $\frac{1}{2}$	.75	9	1.15
2	.35	10	.75	2	.75	10	1.35
2 $\frac{1}{2}$	.35	12	.75	2 $\frac{1}{2}$	.75	12	1.35
3	.35	14	.75	3	.95	14	1.55
3 $\frac{1}{2}$	.35	15	.95	3 $\frac{1}{2}$	.95	15	1.55
4	.35	16	.95	4	.95	16	1.75
4 $\frac{1}{2}$	.55	18	.95	4 $\frac{1}{2}$	.95	18	1.75
5	.55	20	.95	5	.95	20	1.95
6	.55	22	.95	6	.95	22	1.95
7	.55	24	.95	7	1.15	24	1.95

Sizes above 24 inches, prices on application. The above prices apply to both straight and reducing flanged fittings, flanges and valves. Gaskets will be furnished only when specified and at an extra price.

EXTRA HEAVY CAST IRON REDUCING FLANGED FITTINGS

LIST OF SIZES

REDUCING FLANGED TEES

$2\frac{1}{2}x2\frac{1}{2}x2$	5	x5	x3 $\frac{1}{2}$	7x	7x3	10x10x 2
$2\frac{1}{2}x2\frac{1}{2}x1\frac{1}{2}$	5	x5	x3	7x	7x2	10x 8x10
$2\frac{1}{2}x2\frac{1}{2}x1\frac{1}{4}$	5	x5	x2 $\frac{1}{2}$	7x	6x7	10x 6x10
$2\frac{1}{2}x2$ x2	5	x5	x2	7x	6x6	10x 8x 8
	5	x5	x1 $\frac{1}{2}$	7x	5x5	10x 8x 6
3 x3 x2 $\frac{1}{2}$	5	x4	x5	6x	6x7	10x 8x 5
3 x3 x2	5	x3	x5			10x 6x 8
3 x3 x1 $\frac{1}{2}$	5	x2 $\frac{1}{2}$ x5		8x	8x7	10x 6x 6
3 x3 x1 $\frac{1}{4}$	5	x4	x4	8x	8x6	8x 8x10
3 x3 x1	5	x4	x3	8x	8x5	7x 7x10
3 x2 $\frac{1}{2}$ x3	5	x4	x2 $\frac{1}{2}$	8x	8x4 $\frac{1}{2}$	
3 x2 x3	5	x3	x4	8x	8x4	12x12x10
3 x1 $\frac{1}{2}$ x3	5	x3	x3	8x	8x3 $\frac{1}{2}$	12x12x 9
3 x1 $\frac{1}{4}$ x3	4	x4	x5	8x	8x3	12x12x 8
3 x2 $\frac{1}{2}$ x2 $\frac{1}{2}$				8x	8x2 $\frac{1}{2}$	12x12x 7
3 x2 x2	6	x6	x5	8x	8x2	12x12x6
2 x2 x3	6	x6	x4 $\frac{1}{2}$	8x	6x8	12x12x 5
$3\frac{1}{2}x3\frac{1}{2}x2\frac{1}{2}$	6	x6	x3 $\frac{1}{2}$	8x	3x8	12x12x 3
$3\frac{1}{2}x3\frac{1}{2}x2$	6	x6	x3	8x	7x6	12x12x 2 $\frac{1}{2}$
$3\frac{1}{2}x2\frac{1}{2}x3\frac{1}{2}$	6	x6	x2 $\frac{1}{2}$	8x	7x5	12x10x12
	6	x6	x2	8x	6x7	12x 8x12
4 x4 x3 $\frac{1}{2}$	6	x5	x6	8x	6x6	12x10x10
4 x4 x3	6	x4	x6	8x	6x5	12x10x 8
4 x4 x2 $\frac{1}{2}$	6	x3	x6	8x	6x4	12x10x 6
4 x4 x2	6	x2 $\frac{1}{2}$ x6		8x	5x6	12x 8x 8
4 x4 x1 $\frac{1}{2}$	6	x5	x5	8x	5x5	12x 8x 6
4 x3 x4	6	x5	x4	8x	4x6	10x10x12
4 x2 $\frac{1}{2}$ x4	6	x5	x3	8x	4x4	8x 8x12
4 x2 x4	6	x5	x2 $\frac{1}{2}$	6x	6x8	
4 x3 x3	6	x5	x2	5x	5x8	14x14x12
4 x3 x2	6	x4	x5	9x	9x6	14x14x10
4 x3 x1 $\frac{1}{2}$	6	x4	x4	9x	9x5	14x14x 8
4 x2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2	6	x4	x3			14x14x 7
4 x2 x3	6	x3	x3	10x	10x8	14x14x 6
3 x3 x4	5	x5	x6	10x	10x7	14x14x 5
$2\frac{1}{2}x2\frac{1}{2}x4$	4 $\frac{1}{2}$	x2 $\frac{1}{2}$ x6		10x	10x6	14x12x 8
4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x3	4	x4	x6	10x	10x5	
4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x2				10x	10x4 $\frac{1}{2}$	16x16x10
4 $\frac{1}{2}$ x4 x4 $\frac{1}{2}$	7	x7	x6	10x	10x4	16x16x 8
	7	x7	x5	10x	10x3 $\frac{1}{2}$	16x16x 7
5 x5 x4	7	x7	x4	10x	10x3	16x16x 6

(Continued on following page.)

EXTRA HEAVY CAST IRON FLANGED FITTINGS

REDUCING SINGLE SWEEP FLANGED TEES

$4 \times 4 \times 2\frac{1}{2}$	$6 \times 6 \times 4$	$8 \times 8 \times 6$
$4 \times 4 \times 2$	$6 \times 4 \times 4$	$8 \times 6 \times 6$

REDUCING DOUBLE SWEEP FLANGED TEES

$5 \times 5 \times 4$	$6 \times 6 \times 3$	$8 \times 8 \times 5$
$5 \times 5 \times 3$	$8 \times 8 \times 6$	.....

REDUCING FLANGED CROSSES

$3 \times 3 \times 2\frac{1}{2} \times 2\frac{1}{2}$	$8 \times 8 \times 6 \times 6$
$4 \times 4 \times 2\frac{1}{2} \times 2\frac{1}{2}$	$8 \times 8 \times 5 \times 5$
$6 \times 6 \times 4 \times 4$	$8 \times 8 \times 4 \times 4$
$6 \times 6 \times 3 \times 3$

REDUCING FLANGED LATERALS

$4 \times 4 \times 2\frac{1}{2}$	$6 \times 6 \times 2\frac{1}{2}$
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These sizes, as listed with special reducing companion flanges, enable us to furnish almost every variety of fittings required, except special angles, offsets, etc.

Reducing flanges are listed on another page. These flanges will always be the same thickness as the regular companion flanges of corresponding outside diameter.

The flanges are always drilled to the template corresponding to the outside diameter, unless otherwise ordered.

Customers who desire fittings reduced in this manner will please specify "REDUCE BY FLANGES IF NECESSARY."

PRICES OF SIZES NOT SHOWN

Sizes not covered in the list of sizes will be considered special, and made to order at the following advance in prices, according to the quantity of a size ordered at one time, viz.:

Add to the Regular List Prices of Reducing Flanged Fittings
the Percentage Advances Given Below

Size	One Piece	Two Pieces	Three Pieces	Four Pieces	Five Pieces	Six or More
3 $\frac{1}{2}$ -inch and Smaller	50%	40%	30%	20%	10%	No Advance
4 to 8-inch	25%	20%	15%	10%	5%	" "

Sizes 9-inch and larger, will be made to order in quantities of one or more of a size, at the regular list and discount.

GASKETS

FOR STANDARD AND LOW PRESSURE FLANGED VALVES AND FITTINGS

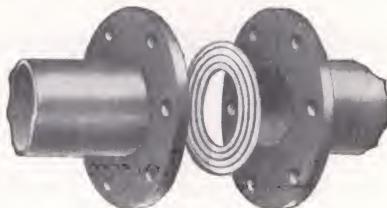


Fig. 8702A

RING GASKETS

Size Valve or Fitting In.	Inside and Outside Diam. In.	PRICE, EACH			Size Valve or Fitting In.	Inside and Outside Diam. In.	PRICE, EACH		
		$\frac{1}{8}$ -inch Cloth Insertion	Corrugated Copper Gasket	$\frac{1}{8}$ -inch Cloth Insertion	Corrugated Copper Gasket		$\frac{1}{8}$ -inch Cloth Insertion	Corrugated Copper Gasket	
$\frac{3}{4}$	$\frac{3}{4}$ x 2 $\frac{1}{8}$	.05	.15			$\frac{3}{4}$	$\frac{3}{4}$ x 3 $\frac{1}{2}$	.10	.18
1	1 x 2 $\frac{9}{16}$	.05	.16			1	1 x 4	.10	.25
$1\frac{1}{4}$	$1\frac{1}{4}$ x 2 $\frac{15}{16}$	.07	.17			$1\frac{1}{4}$	$1\frac{1}{4}$ x 4 $\frac{1}{2}$	.14	.30
$1\frac{1}{2}$	$1\frac{1}{2}$ x 3 $\frac{3}{8}$	.07	.18			$1\frac{1}{2}$	$1\frac{1}{2}$ x 5	.14	.35
2	2 x 4 $\frac{1}{8}$	.07	.21			2	2 x 6	.18	.50
$2\frac{1}{2}$	$2\frac{1}{2}$ x 4 $\frac{7}{8}$	.09	.27			$2\frac{1}{2}$	$2\frac{1}{2}$ x 7	.23	.67
3	3 x 5 $\frac{3}{8}$	.12	.31			3	3 x 7 $\frac{1}{2}$	.28	.75
$3\frac{1}{2}$	$3\frac{1}{2}$ x 6 $\frac{3}{8}$	.14	.47			$3\frac{1}{2}$	$3\frac{1}{2}$ x 8 $\frac{1}{2}$	.30	.95
4	4 x 6 $\frac{7}{8}$	.16	.52			4	4 x 9	.35	1.05
$4\frac{1}{2}$	$4\frac{1}{2}$ x 7	.16	.52			$4\frac{1}{2}$	$4\frac{1}{2}$ x 9 $\frac{1}{4}$	.37	1.05
5	5 x 7 $\frac{3}{4}$	.19	.55			5	5 x 10	.42	1.20
6	6 x 8 $\frac{3}{4}$	.23	.65			6	6 x 11	.47	1.35
7	7 x 10	.28	.80			7	7 x 12 $\frac{1}{2}$	.58	1.70
8	8 x 11	.30	.90			8	8 x 13 $\frac{1}{2}$	.65	1.85
9	9 x 12 $\frac{1}{2}$	.37	1.20			9	9 x 15	.81	2.25
10	10 x 13 $\frac{3}{8}$	.42	1.30			10	10 x 16	.88	2.45
12	12 x 16 $\frac{1}{8}$	.58	1.90			12	12 x 19	1.15	3.40
14	14 x 17 $\frac{3}{4}$	.70	1.90			14	14 x 21	1.30	3.85
15	15 x 19	.75	2.15			15	15 x 22 $\frac{1}{4}$	1.50	4.25
16	16 x 20 $\frac{1}{4}$	.82	2.40			16	16 x 23 $\frac{1}{2}$	1.65	4.65
18	18 x 21 $\frac{5}{8}$	.86	2.40			18	18 x 25	1.85	4.75
20	20 x 23 $\frac{1}{8}$	1.02	2.75			20	20 x 27 $\frac{1}{2}$	2.00	5.60
22	22 x 26	1.10	3.05			22	22 x 29 $\frac{1}{2}$	2.10	6.10
24	24 x 28 $\frac{1}{4}$	1.40	3.50			24	24 x 32	2.55	...
26	26 x 30 $\frac{1}{2}$	1.62	...			26	26 x 34 $\frac{1}{4}$	3.25	...
28	28 x 32 $\frac{3}{4}$	1.85	...			28	28 x 36 $\frac{1}{2}$	3.45	...
30	30 x 34 $\frac{5}{8}$	2.10	...			30	30 x 38 $\frac{3}{4}$	3.80	...
32	32 x 37	2.30	...			32	32 x 41 $\frac{3}{4}$	4.15	...
34	34 x 39	2.65	...			34	34 x 43 $\frac{3}{4}$	4.65	...
36	36 x 41 $\frac{1}{4}$	2.90	...			36	36 x 46	5.10	...
38	38 x 43 $\frac{5}{8}$	3.10	...						
40	40 x 45 $\frac{5}{8}$	3.35	...						
42	42 x 47 $\frac{7}{8}$	3.50	...						

FULL FACE GASKETS

Size Valve or Fitting In.	Inside and Outside Diam. In.	PRICE, EACH			Size Valve or Fitting In.	Inside and Outside Diam. In.	PRICE, EACH		
		$\frac{1}{8}$ -inch Cloth Insertion	Corrugated Copper Gasket	$\frac{1}{8}$ -inch Cloth Insertion	Corrugated Copper Gasket		$\frac{1}{8}$ -inch Cloth Insertion	Corrugated Copper Gasket	
$\frac{3}{4}$	$\frac{3}{4}$ x 3 $\frac{1}{2}$	.10	.18			1	1 x 4	.10	.25
1	1 x 4	.10	.25			$1\frac{1}{4}$	$1\frac{1}{4}$ x 4 $\frac{1}{2}$	.14	.30
$1\frac{1}{2}$	$1\frac{1}{2}$ x 5	.14	.35			2	2 x 6	.18	.50
2	2 x 6	.18	.50			$2\frac{1}{2}$	$2\frac{1}{2}$ x 7	.23	.67
$2\frac{1}{2}$	$2\frac{1}{2}$ x 7	.23	.67			3	3 x 7 $\frac{1}{2}$	.28	.75
3	3 x 8 $\frac{1}{2}$	.30	.85			$3\frac{1}{2}$	$3\frac{1}{2}$ x 8 $\frac{1}{2}$	.30	.95
$3\frac{1}{2}$	$3\frac{1}{2}$ x 9 $\frac{1}{4}$	.37	1.05			4	4 x 9	.35	1.05
4	4 x 9	.42	1.05			5	5 x 10	.42	1.20
5	5 x 10	.42	1.20			6	6 x 11	.47	1.35
7	7 x 12 $\frac{1}{2}$	.58	1.70			8	8 x 13 $\frac{1}{2}$	.65	1.85
9	9 x 15	.81	2.25			10	10 x 16	.88	2.45
12	12 x 19	1.15	3.40			14	14 x 21	1.30	3.85
14	14 x 22 $\frac{1}{4}$	1.50	4.25			16	16 x 23 $\frac{1}{2}$	1.65	4.65
15	15 x 25	1.85	4.75			18	18 x 27 $\frac{1}{2}$	2.00	5.60
20	20 x 29 $\frac{1}{2}$	2.10	6.10			22	22 x 31 $\frac{1}{2}$	2.10	6.10
24	24 x 32 $\frac{3}{4}$	2.55	...			26	26 x 34 $\frac{1}{4}$	3.25	...
26	26 x 34 $\frac{1}{4}$	3.25	...			28	28 x 36 $\frac{1}{2}$	3.45	...
28	28 x 38 $\frac{3}{4}$	3.80	...			30	30 x 38 $\frac{3}{4}$	3.80	...
30	30 x 40 $\frac{5}{8}$	4.15	...			32	32 x 43 $\frac{3}{4}$	4.65	...
32	32 x 43 $\frac{3}{4}$	4.65	...			34	34 x 46	5.10	...
34	34 x 46	5.10	...						

Ring gaskets will always be furnished, unless otherwise ordered.

The commercial corrugated copper gasket is made from 27-gauge sheet copper, and this gauge will be furnished on all orders for low pressure or standard copper gaskets. We can furnish these gaskets made from heavier sheet copper at an extra price. We can furnish gaskets made from other commercial sheet packings or metals.

Full face gaskets are furnished without bolt holes; bolt holes will be punched at an extra price when so ordered.

GASKETS

FOR MEDIUM AND EXTRA HEAVY FLANGED VALVES AND FITTINGS
RING GASKETS

Size Valve or Fitting Inches	Inside and Outside Diameter Inches	PRICE, EACH		Size Valve or Fitting Inches	Inside and Outside Diameter Inches	PRICE, EACH	
		Imic ^o Special	Corrugated Copper			Imic ^o Special	Corrugated Copper
1	1 x 2 ³ / ₄	.17	.17	1	1 x 2 ¹⁵ / ₁₆	.11	.16
1 ¹ / ₄	1 ¹ / ₄ x 3 ¹ / ₄	.17	.18	1 ¹ / ₄	1 ¹ / ₄ x 2 ³ / ₄	.11	.17
1 ¹ / ₂	1 ¹ / ₂ x 3 ⁷ / ₈	.17	.21	1 ¹ / ₂	1 ¹ / ₂ x 3 ¹ / ₈	.11	.18
2	2 x 4 ³ / ₈	.19	.24	2	2 x 3 ⁵ / ₈	.11	.19
2 ¹ / ₂	2 ¹ / ₂ x 5 ¹ / ₈	.25	.31	2 ¹ / ₂	2 ¹ / ₂ x 4 ¹ / ₈	.13	.21
3	3 x 5 ⁷ / ₈	.32	.43	3	3 x 5	.17	.29
3 ¹ / ₂	3 ¹ / ₂ x 6 ¹ / ₂	.35	.47	3 ¹ / ₂	3 ¹ / ₂ x 5 ¹ / ₂	.21	.32
4	4 x 7 ¹ / ₈	.38	.58	4	4 x 6	.23	.38
4 ¹ / ₂	4 ¹ / ₂ x 7 ³ / ₄	.44	.62	4 ¹ / ₂	4 ¹ / ₂ x 6 ¹ / ₂	.28	.47
5	5 x 8 ¹ / ₂	.52	.75	5	5 x 7 ³ / ₄	.32	.55
6	6 x 9 ⁷ / ₈	.63	1.00	6	6 x 8 ³ / ₈	.35	.65
7	7 x 11	.85	1.15	7	7 x 9 ³ / ₈	.42	.80
8	8 x 12 ¹ / ₈	.90	1.35	8	8 x 10 ⁵ / ₈	.52	.90
9	9 x 13	1.00	1.40	9	9 x 11 ⁵ / ₈	.57	1.20
10	10 x 14 ¹ / ₄	1.15	1.65	10	10 x 12 ³ / ₄	.67	1.20
12	12 x 16 ⁵ / ₈	1.50	2.15	12	12 x 15 ¹ / ₄	.92	1.75
14	14 x 19 ¹ / ₈	2.10	2.75	14	14 x 16 ¹ / ₂	1.00	1.90
15	15 x 20 ¹ / ₄	2.20	2.90	15	15 x 17 ¹ / ₂	1.05	2.00
16	16 x 21 ¹ / ₄	2.50	3.25	16	16 x 18 ¹ / ₂	1.20	2.15
18	18 x 23 ¹ / ₂	2.85	3.60	18	18 x 21	1.45	2.35
20	20 x 25 ⁵ / ₈	3.05	3.95	20	20 x 23	1.70	2.75
22	22 x 27 ³ / ₄	3.25	4.50	22	22 x 25 ¹ / ₂	2.10	3.00
24	24 x 30 ³ / ₈	4.00	....	24	24 x 27 ¹ / ₂	2.40	3.40

FULL FACE GASKETS

1	1 x 4 ¹ / ₂	.38	.30
1 ¹ / ₄	1 ¹ / ₄ x 5	.38	.36
1 ¹ / ₂	1 ¹ / ₂ x 6	.38	.54
2	2 x 6 ¹ / ₂	.45	.60
2 ¹ / ₂	2 ¹ / ₂ x 7 ¹ / ₂	.55	.80
3	3 x 8 ¹ / ₄	.67	.95
3 ¹ / ₂	3 ¹ / ₂ x 9	.75	1.10
4	4 x 10	.95	1.30
4 ¹ / ₂	4 ¹ / ₂ x 10 ¹ / ₂	1.00	1.40
5	5 x 11	1.05	1.50
6	6 x 12 ¹ / ₂	1.25	1.90
7	7 x 14	1.55	2.30
8	8 x 15	1.70	2.55
9	9 x 16 ¹ / ₄	2.00	2.90
10	10 x 17 ¹ / ₂	2.20	3.25
12	12 x 20 ¹ / ₂	2.95	4.35
14	14 x 23	3.55	5.15
15	15 x 24 ¹ / ₂	4.00	5.90
16	16 x 25 ¹ / ₂	4.20	6.20
18	18 x 28	4.60	7.25
20	20 x 30 ¹ / ₂	5.25	....
22	22 x 33	5.85	....
24	24 x 36	6.60	....

Ring gaskets cover the faces of flanges inside of bolt holes, and will always be furnished unless otherwise ordered.

Full face gaskets are furnished without bolt holes; bolt holes will be punched at extra price when ordered.

GASKETS FOR MALE AND
FEMALE JOINTS

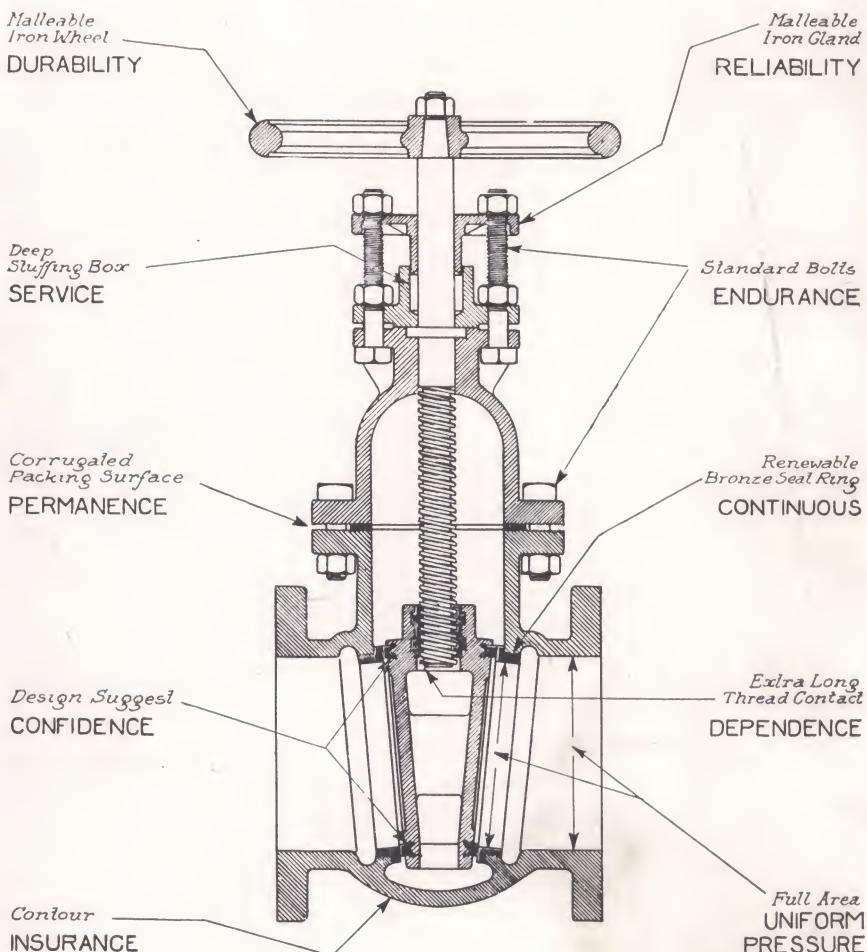
Size Valve or Fitting Inches	Inside and Outside Diameter Inches	PRICE, EACH	
		Imic ^o Special	Corrugated Copper
1	1 ³ / ₄ x 2 ¹ / ₂	.07	.17
1 ¹ / ₄	2 ¹ / ₈ x 3	.07	.18
1 ¹ / ₂	2 ³ / ₄ x 3 ⁵ / ₈	.07	.19
2	3 ¹ / ₈ x 4 ¹ / ₈	.07	.21
2 ¹ / ₂	3 ⁵ / ₈ x 4 ³ / ₈	.09	.29
3	4 ¹ / ₄ x 5 ¹ / ₄	.11	.29
3 ¹ / ₂	4 ³ / ₄ x 5 ³ / ₄	.11	.35
4	5 ¹ / ₄ x 6 ¹ / ₄	.13	.42
4 ¹ / ₂	5 ³ / ₄ x 6 ³ / ₄	.13	.45
5	5 ¹ / ₄ x 7 ¹ / ₄	.13	.55
6	7 ¹ / ₂ x 8 ¹ / ₂	.15	.65
7	8 ⁵ / ₈ x 9 ⁵ / ₈	.17	.80
8	9 ⁵ / ₈ x 10 ⁷ / ₈	.23	.90
9	10 ⁵ / ₈ x 11 ⁷ / ₈	.25	1.20
10	11 ⁵ / ₈ x 13 ¹ / ₈	.32	1.20
12	13 ⁵ / ₈ x 15 ¹ / ₈	.38	1.75
14	15 ⁷ / ₈ x 17 ³ / ₈	.42	1.90
15	17 ¹ / ₈ x 18 ⁵ / ₈	.46	2.15
16	18 ³ / ₈ x 20 ¹ / ₈	.60	2.40
18	20 ⁵ / ₈ x 22 ³ / ₈	.75	2.75
20	22 ⁵ / ₁₆ x 24 ⁵ / ₁₆	.85	2.90
22	24 ¹ / ₂ x 26 ¹ / ₂	.95	3.40
24	26 ¹ / ₂ x 28 ¹ / ₂	1.05	3.50

Corrugated copper gaskets are made from 27 gauge copper. Can be furnished made from a heavier gauge of copper, at extra price, with either plain or corrugated faces, and hard or annealed.

IMICO STANDARD IRON BODY GATE VALVES

NON-RISING STEM
WEDGE GATE—BRASS TRIMMINGSFor Steam Working Pressures Up to 125 Pounds
For Water Working Pressures Up to 175 Pounds

SECTIONAL VIEW



A VALVE OF QUALITY

IMICO STANDARD IRON BODY GATE VALVES
NON-RISING STEM
WEDGE GATE—BRASS TRIMMINGS

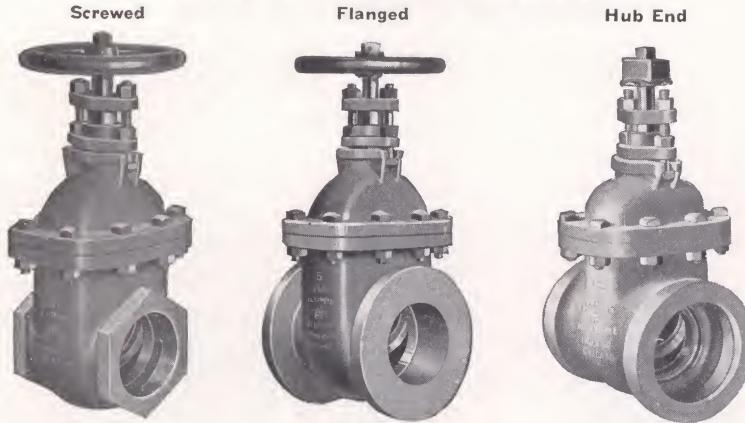


Fig. 8738A

Fig. 8738B

Fig. 8738C

SCREWED OR FLANGED

For Steam Working Pressure up to 125 Pounds
 For Water Working Pressure up to 175 Pounds

Size Inches	End to Screwed Inches	Face to Flanged Inches	Center to Top Inches	Diam- eter		Thickness Flange Inches	Diam- eter Wheel Inches	PRICE, EACH	
				Dia- meter Flanges Inches	Dia- meter Flange Inches			Screwed	Flanged
2	5 $\frac{1}{6}$	7	11 $\frac{3}{4}$	6	5 $\frac{1}{8}$	6 $\frac{1}{2}$	10.00	12.00	
2 $\frac{1}{2}$	5 $\frac{7}{8}$	7 $\frac{1}{2}$	12 $\frac{3}{4}$	7	6 $\frac{1}{16}$	6 $\frac{1}{2}$	11.50	13.50	
3	6 $\frac{3}{8}$	8	14 $\frac{1}{4}$	7 $\frac{1}{2}$	3 $\frac{3}{4}$	7 $\frac{1}{2}$	14.00	16.50	
3 $\frac{1}{2}$	6 $\frac{7}{8}$	8 $\frac{1}{2}$	15 $\frac{1}{2}$	8 $\frac{1}{2}$	13 $\frac{1}{16}$	7 $\frac{1}{2}$	17.00	19.50	
4	7 $\frac{1}{2}$	9	16 $\frac{1}{4}$	9	15 $\frac{1}{16}$	9	19.00	23.00	
4 $\frac{1}{2}$	7 $\frac{3}{4}$	9 $\frac{1}{2}$	17 $\frac{5}{8}$	9 $\frac{1}{4}$	15 $\frac{1}{16}$	9	24.00	28.00	
5	8	10	19	10	15 $\frac{1}{16}$	10	27.50	31.50	
6	8 $\frac{1}{2}$	10 $\frac{1}{2}$	20 $\frac{3}{4}$	11	1	12	32.50	36.50	
7	9	11	...	12 $\frac{1}{2}$	1 $\frac{1}{16}$	12	45.00	49.00	
8	9 $\frac{5}{8}$	11 $\frac{1}{2}$	23	13 $\frac{1}{2}$	11 $\frac{1}{8}$	14	54.00	58.00	
10	11 $\frac{3}{8}$	13	30	16	1 $\frac{3}{16}$	16	90.00	95.00	
12	12 $\frac{1}{2}$	14	33 $\frac{3}{8}$	19	1 $\frac{1}{16}$	18	125.00	133.00	

Valves will be shipped faced only unless otherwise ordered.

HUB ENDS

For Water Working Pressure up to 175 Pounds

Size Inches	End to End Inches	End to End of Pipe Inches	Inside Diameter of Hub Inches		Price Each
			3 $\frac{1}{4}$	3 $\frac{1}{4}$	
2	8 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{1}{4}$	3 $\frac{1}{4}$	10.00
3	9	...	4 $\frac{1}{2}$	4 $\frac{1}{2}$	14.00
4	9 $\frac{1}{2}$	4 $\frac{1}{2}$	5 80	5 80	19.00
5	...	...	...	...	27.50
6	11 $\frac{3}{4}$	5 $\frac{3}{4}$	7 90	7 90	32.50
7	...	...	...	...	45.00
8	12 $\frac{1}{8}$	6 $\frac{1}{4}$	10	10	54.00
10	13	7 $\frac{1}{2}$	12	12	90.00
12	13 $\frac{1}{4}$	8 $\frac{1}{4}$	14 $\frac{1}{8}$	14 $\frac{1}{8}$	125.00

Valves regularly furnished open to the left.

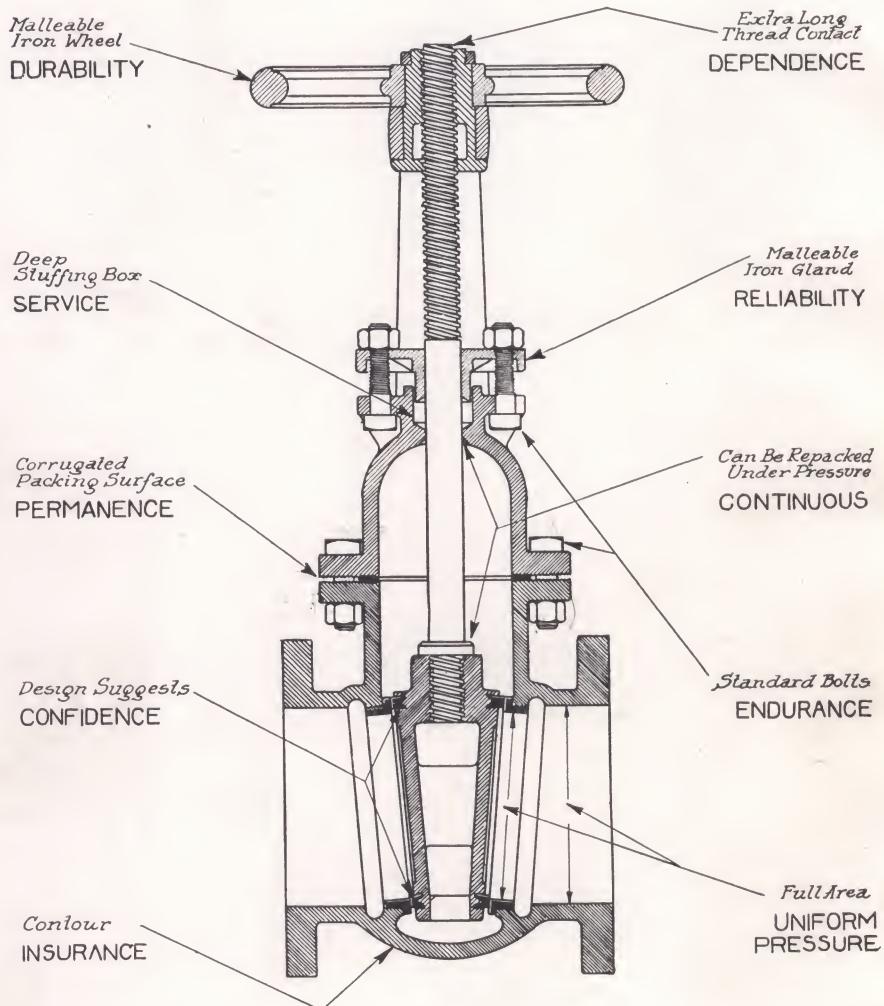
ALL IRON GATE VALVES

All iron gate valves same list as brass mounted.

IMICO STANDARD IRON BODY GATE VALVES

OUTSIDE SCREW AND YOKE
WEDGE GATE—BRASS TRIMMINGSFor Steam Working Pressures Up to 125 Pounds
For Water Working Pressures Up to 175 Pounds

SECTIONAL VIEW



A VALVE OF QUALITY

IMICO STANDARD IRON BODY GATE VALVES

OUTSIDE SCREW AND YOKE
WEDGE GATE—BRASS TRIMMINGSFor Steam Working Pressure up to 125 Pounds
For Water Working Pressure up to 175 Pounds

Screwed



Fig. 8740A

Flanged

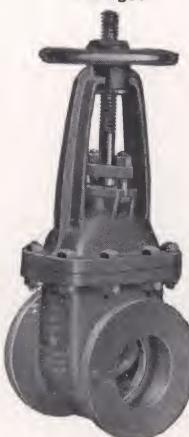


Fig. 8740B

Size Inches	End to End Inches	Face to Face Inches	Center to Top—Rising Inches	Center to Top—Rising Stem Open Inches	Dia- meter Wheel Inches	Dia- meter Flange Inches	Thick- ness of Flange Inches
2	5 $\frac{1}{8}$	7	11 $\frac{3}{4}$	14 $\frac{1}{2}$	6 $\frac{1}{2}$	6	5 $\frac{5}{8}$
2 $\frac{1}{2}$	5 $\frac{7}{8}$	7 $\frac{1}{2}$	13 $\frac{1}{2}$	16 $\frac{1}{2}$	6 $\frac{1}{2}$	7	11 $\frac{5}{16}$
3	6 $\frac{3}{8}$	8	15 $\frac{1}{2}$	19 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$	3 $\frac{3}{4}$
3 $\frac{1}{2}$	6 $\frac{7}{8}$	8 $\frac{1}{2}$	17	21 $\frac{1}{2}$	7 $\frac{1}{2}$	8 $\frac{1}{2}$	13 $\frac{13}{16}$
4	7 $\frac{1}{2}$	9	19 $\frac{1}{4}$	24 $\frac{1}{4}$	9	9	15 $\frac{15}{16}$
4 $\frac{1}{2}$	7 $\frac{3}{4}$	9 $\frac{1}{2}$	20	25 $\frac{1}{4}$	9	9 $\frac{1}{4}$	15 $\frac{15}{16}$
5	8	10	22 $\frac{1}{2}$	28 $\frac{1}{4}$	10	10	15 $\frac{15}{16}$
6	8 $\frac{1}{2}$	10 $\frac{1}{2}$	24 $\frac{1}{2}$	32	12	11	1
7	8 $\frac{3}{4}$	11	28 $\frac{1}{2}$	37	12	12 $\frac{1}{2}$	1 $\frac{1}{16}$
8	9 $\frac{1}{8}$	11 $\frac{1}{2}$	31	40	14	13 $\frac{1}{2}$	11 $\frac{1}{8}$
10	11 $\frac{3}{8}$	13	37 $\frac{3}{8}$	48 $\frac{5}{8}$	14 $\frac{1}{4}$	14 $\frac{1}{4}$	1 $\frac{3}{16}$
12	12 $\frac{1}{2}$	14	39 $\frac{1}{8}$	52 $\frac{7}{8}$	17	17	1 $\frac{5}{16}$

Size In. 1.	PRICE, EACH				Size In.	PRICE, EACH			
	With Steel Stem Serd.	With Brass Stem Serd.	With Steel Stem Flgd.	With Brass Stem Flgd.		With Steel Stem Serd.	With Brass Stem Serd.	With Steel Stem Flgd.	With Brass Stem Flgd.
2	17.50	19.00	19.50	21.00	5	42.00	45.00	46.00	49.00
2 $\frac{1}{2}$	19.00	20.50	21.00	22.50	6	48.00	52.00	52.00	56.00
3	22.00	23.50	24.50	26.00	7	64.00	69.00	68.00	73.00
3 $\frac{1}{2}$	25.00	27.00	27.50	29.50	8	80.00	86.00	84.00	90.00
4	30.00	32.50	34.00	36.50	10	122.00	131.00	127.00	136.00
4 $\frac{1}{2}$	37.00	40.00	41.00	44.00	12	160.00	172.00	168.00	180.00

Valves will be shipped faced only unless otherwise ordered.
Valves regularly furnished open to the left.

ALL IRON GATE VALVES

All iron gate valves same list as brass mounted.

IMICO STANDARD BRASS VALVES
GLOBE AND ANGLE VALVES
WITH BRASS DISC

For Steam Working Pressures Up to 125 Pounds

Globe

Angle



Fig. 8743A



Fig. 8743B

Size	inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price, Globe or Angle	each	.72	.72	.77	1.00	1.26	1.80	2.52				
Size	inches	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4					
Price, Globe or Angle	each	3.50	5.30	10.00	14.40	26.50	36.00					

DOUBLE DISC GATE VALVES
TAPER SEATS—NON-RISING STEM

For Steam Working Pressure Up to 125 Pounds



Fig. 8743C

Size	inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price	each	1.45	1.45	1.65	2.05	2.80	3.70	5.00	7.30	13.00	19.00

IMICO SECTIONAL HEATING BOILERS

CONSTRUCTION

The Imico Heating Boilers are made of vertical cast iron sections connected to cast iron headers by extra heavy wrought iron nipples, all screw joints being readily accessible and connected outside the fire. The heating engineer will appreciate one point peculiar to the Imico Boiler, namely: That care is taken by means of special machinery to secure perfect alignment—a feature not possessed by other screw connection boilers.

CIRCULATION

The Imico Heating Boilers are so constructed that the circulation is absolutely perfect; the waterways being vertically inclined and fire surfaces being horizontal, insure at all times good results and quick separation of steam from water. Another feature of construction inducing perfect circulation is the fact that each section has independent positive internal circulation.

HEATING SURFACE

Each Imico Heating Boiler is provided with a sufficiency of grate surface, together with the proper proportion of prime heating surface to utilize the products of combustion, and for this reason we claim that this boiler is a small coal consumer in proportion to results obtained. This boiler practically possesses all the merits of water tube construction, with better results as to circulation.

FUEL

The Imico Heating Boilers are adapted for burning anthracite coal, bituminous coal, coke or wood, and as there are no inaccessible surfaces to clog up, any kind of fuel may be used successfully.

GRATE FIXTURES

The Imico Heating Boiler has a rocking grate, shaken by a lever, which does not require dumping to clear out clinkers, as ashes and clinkers are ground up by the rocking action of the grate. The grates of all except the smaller sizes are shaken by two sets of levers, each set controlling one half of the grate surface. All grate fixtures are made of malleable iron, excepting the grate bars; namely, the handle, shaking bar, lever, toggle and bracket are made of malleable iron and the bars proper of gray iron.

CLEANLINESS

An important factor in all heating boilers is accessibility of flue surface in order that same may be kept clean. In the Imico Heating Boilers, the last section can be cleaned from the back and all other sections are easily reached through the front cleanout doors.

SPECIAL NOTICE—RATINGS

In computing the ratings of Imico Heating Boilers, we have adhered to our long established policy of conservative ratings, and the ratings herein shown are so safe that the trade may be assured that in installing the Imico Line, 100 per cent satisfaction may be expected, providing normal conditions obtain regarding exposure, installation, etc.

We do not recommend the use of a pipe coil or cast iron section in the fire pot for hot water supply, but advise the use of a separate water heater.

IMICO SECTIONAL WATER BOILERS

400 SERIES

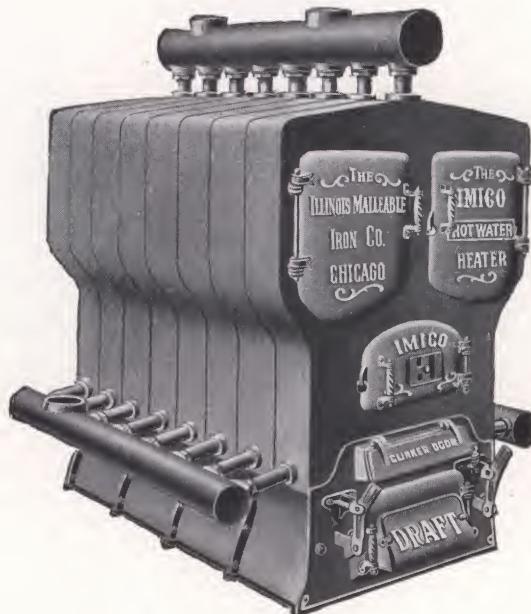


Fig. 8518A

Number	Number of Sections	Length Inches	Base Inches	Grate Inches	Tapped for Flow and Return Inches	Direct Radiation Square Feet	Price Each
395	5	50	33x33	24x27	2—3	1500	310.00
400	6	57	33x40	24x34	2—3	1825	360.00
405	7	63	33x46	24x40	2—4	2150	420.00
410	8	69	33x52	24x46	2—4	2525	475.00
415	9	75	33x58	24x52	2—4	2875	515.00
420	10	82	33x65	24x59	2—4	3250	575.00

Prices include necessary fire tools.

Ratings are gross, and it is understood that all piping, mains and risers shall be figured as radiating surface.

The ratings on Imico Water Boilers are based on the assumption that the mean temperature of the water at the boiler be 180° Fahr.

IMICO SECTIONAL STEAM BOILERS

500 Series



Fig. 8520A

Number	Number of Sections	Length Inches	Base Inches	Grate Inches	Tapped for Flow and Return Inches	Direct Radiation Square Feet	Price Each
495	5	50	33x33	24x27	2-3	900	330.00
500	6	57	33x40	24x34	2-3	1100	385.00
505	7	63	33x46	24x40	2-4	1300	440.00
510	8	69	33x52	24x46	2-4	1525	495.00
515	9	75	33x58	24x52	2-4	1750	545.00
520	10	82	33x65	24x59	2-4	1975	600.00

Prices include necessary trimmings and fire tools.

Ratings are gross, and it is understood that all piping, mains and risers shall be figured as radiating surface.

The ratings on Imico Steam Boilers are based on the assumption that an average pressure of 2 pounds be maintained at the boiler.

IMICO SECTIONAL WATER BOILERS

600 SERIES

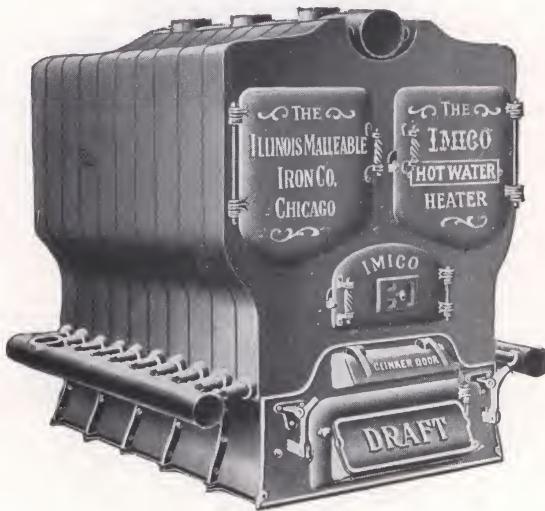


Fig. 8523A

Number	Number of Sections	Base Inches	Grate Inches	Tapped for Flow and Return Inches	Direct Radiation Square Feet	Price Each
600	7	44x45	36x40	2—4	3650	640.00
605	8	44x51	36x46	3—4	4300	700.00
610	9	44x57	36x52	2—5	4950	805.00
615	10	44x64	36x59	2—5	5600	885.00
620	11	44x70	36x65	2—6	6250	985.00
625	12	44x76	36x65	2—6	6900	1075.00
630	13	44x83	36x65	2—6	7550	1195.00
635	14	44x89	36x65	2—6	8200	1310.00

Prices include necessary fire tools.

Ratings are gross, and it is understood that all piping, mains and risers shall be figured as radiating surface.

The ratings on Imico Water Boilers are based on the assumption that the mean temperature of the water at the boiler be 180° Fahr.

IMICO SECTIONAL STEAM BOILERS

700 SERIES



Fig. 8525A

Number	Number of Sections	Base Inches	Grate Inches	Tapped for Flow Inches	Tapped for Return Inches	Direct Radiation Square Feet	Price Each
700	7	44x45	36x40	2—4	2—4	2200	670.00
705	8	44x51	36x46	3—4	4—4	2600	740.00
710	9	44x57	36x52	2—5	4—4	3000	815.00
715	10	44x64	36x59	2—5	4—4	3400	940.00
720	11	44x70	36x65	2—6	4—4	3800	1015.00
725	12	44x76	36x65	2—6	4—4	4200	1105.00
730	13	44x83	36x65	2—6	4—5	4600	1215.00
735	14	44x89	36x65	2—6	4—5	5000	1340.00

Prices include necessary trimmings and fire tools.

Ratings are gross, and it is understood that all piping, mains and risers shall be figured as radiating surface.

The ratings on Imico Steam Boilers are based on the assumption that an average pressure of 2 pounds be maintained at the boiler.

IMICO SECTIONAL BOILERS

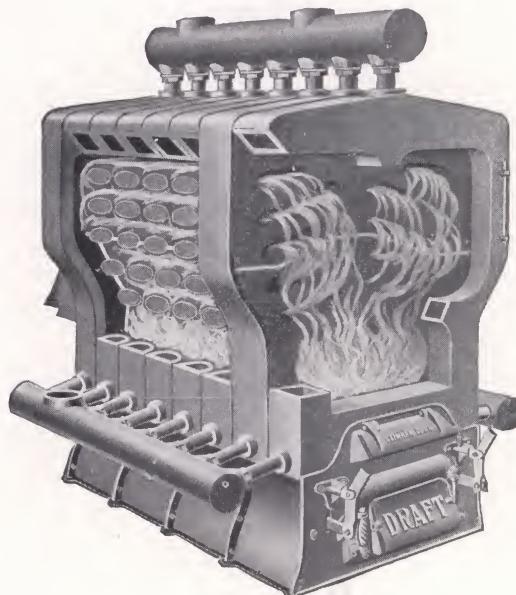
DIMENSIONS AND MEASUREMENTS OF 400 AND 500 SERIES

Number of Water Boiler	395	400	405
" " Steam "	495	500	505
" " Sections	5	6	7
Length " " only	31	38	44
" Including Smoke Box	" 50	57	63
Width of Sections	" 40	40	40
" Center to Center of Return Headers	" 46½	46½	46½
Height to Flow Pipe Openings	" 69	69	69
" " Top of Sections	" 58	58	58
" " Return Pipe Openings	" 17½	17½	17½
" of Base	" 14	14	14
" to Smoke Pipe Opening	" 43	43	43
" of Water Line	" 51	51	51
Diameter of Smoke Pipe	" 8	8	10
Dimensions of Base	" 33x33	33x40	33x46
" " Grate	" 24x27	24x34	24x40
" " Fire Door Opening	" 9x14½	9x14½	9x14½
Front of Boiler to Center of First Flow Pipe Opening	" 8	14½	8
Center to Center of Flow Pipe Openings	" 12¾	12¾	25½
Front of Boiler to Center of Return Pipe Openings	" 17½	24¾	30
Flow Pipe Openings	" 2—3	2—3	2—4
Return Pipe Openings	" 2—3	2—3	2—4
Number of Water Boiler	410	415	420
" " Steam "	510	515	520
" " Sections	8	9	10
Length " " only	50	57	63
" Including Smoke Box	" 69	75	82
Width of Sections	" 40	40	40
" Center to Center of Return Headers	" 46½	46½	46½
Height to Flow Pipe Openings	" 69	69	69
" " Top of Sections	" 58	58	58
" " Return Pipe Openings	" 17½	17½	17½
" of Base	" 14	14	14
" to Smoke Pipe Opening	" 43	43	43
" of Water Line	" 51	51	51
Diameter of Smoke Pipe	" 10	12	12
Dimensions of Base	" 33x52	33x58	33x65
" " Grate	" 24x46	24x52	24x59
" " Fire Door Opening	" 9x14½	9x14½	9x14½
Front of Boiler to Center of First Flow Pipe Opening	" 14½	8	14½
Center to Center of Flow Pipe Openings	" 25½	38½	38½
Front of Boiler to Center of Return Pipe Openings	" 37	43¼	49½
Flow Pipe Openings	" 2—4	2—4	2—4
Return Pipe Openings	" 2—4	2—4	2—4

IMICO SECTIONAL BOILERS

DIMENSIONS AND MEASUREMENTS OF 600 AND 700 SERIES

Number of Water Boiler.....	600	605	610	615
" " Steam ".....	700	705	710	715
" " Sections.....	7	8	9	10
Length of Sections only.....inches	44 $\frac{1}{8}$	50 $\frac{1}{4}$	56 $\frac{5}{8}$	63
" Including Smoke Box....."	65 $\frac{1}{8}$	71 $\frac{1}{4}$	77 $\frac{5}{8}$	84
Width of Sections.....	"	53	53	53
" Center to Center of Return Headers"	60	60	60	60
Height to Flow Pipe Openings....."	73	73	73	73
" " Top of Sections....."	73	73	73	73
" " Return Pipe Openings....."	17 $\frac{1}{4}$	17 $\frac{1}{4}$	17 $\frac{1}{4}$	17 $\frac{1}{4}$
" " of Base....."	14	14	14	14
" " to Smoke Pipe Opening....."	49	49	49	49
" " of Water Line....."	61 $\frac{1}{2}$	61 $\frac{1}{2}$	61 $\frac{1}{2}$	61 $\frac{1}{2}$
Dimensions of Smoke Pipe Opening....."	14	14	14	16
" " Base....."	45x44	51x44	57x44	64x44
" " Grate....."	40x36	46x36	52x36	59x36
" " Fire Door Opening....."	19x11	19x11	19x11	19x11
Front of Boiler to Center of First Flow Pipe Opening....."	14 $\frac{1}{2}$	15 $\frac{1}{2}$	15 $\frac{1}{2}$	20 $\frac{3}{4}$
Center to Center of Flow Pipes....."	13 $\frac{1}{4}$	12 $\frac{1}{2}$	25	25 $\frac{1}{2}$
Front of Boiler to Center of Return Pipe Openings....."	8	14 $\frac{1}{2}$	8	14 $\frac{1}{2}$
Center to Center of Return Pipe Openings....."	.....	25 $\frac{1}{2}$	32	38
Flow Pipe Openings....."	2—4	3—4	2—5	2—5
Return Pipe Openings....."	2—4	4—4	4—4	4—4
Number of Water Boiler.....	620	625	630	635
" " Steam ".....	720	725	730	735
" " Sections.....	11	12	13	14
Length " " only.....inches	69 $\frac{3}{8}$	75 $\frac{5}{8}$	82	88 $\frac{3}{8}$
" Including Smoke Box....."	90 $\frac{3}{8}$	96 $\frac{5}{8}$	103	109 $\frac{3}{8}$
Width of Sections.....	"	53	53	53
" Center to Center of Return Headers"	60	60	60	60
Height to Flow Pipe Openings....."	73	73	73	73
" " Top of Sections....."	73	73	73	73
" " Return Pipe Openings....."	17 $\frac{1}{4}$	17 $\frac{1}{4}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$
" " of Base....."	14	14	14	14
" " to Smoke Pipe Opening....."	49	49	49	49
" " of Water Line....."	61 $\frac{1}{2}$	61 $\frac{1}{2}$	61 $\frac{1}{2}$	61 $\frac{1}{2}$
Dimensions of Smoke Pipe Opening....."	16	16	20	20
" " Base....."	70x44	76 $\frac{1}{2}$ x44	83x44	89x44
" " Grate....."	65x36	65x36	65x36	65x36
" " Fire Door Opening....."	19x11	19x11	19x11	19x11
Front of Boiler to Center of First Flow Pipe Opening....."	20 $\frac{3}{4}$	21 $\frac{1}{4}$	21 $\frac{1}{4}$	21 $\frac{1}{4}$
Center to Center of Flow Pipes....."	31 $\frac{1}{2}$	31 $\frac{1}{2}$	37 $\frac{3}{4}$	44
Front of Boiler to Center of Return Pipe Openings....."	17 $\frac{3}{4}$	17 $\frac{3}{4}$	17 $\frac{3}{4}$	17 $\frac{3}{4}$
Center to Center of Return Pipe Openings....."	38	44 $\frac{1}{4}$	50 $\frac{1}{2}$	57
Flow Pipe Openings....."	2—6	2—6	2—6	2—6
Return Pipe Openings....."	4—4	4—4	4—5	4—5

IMICO SECTIONAL BOILERS**Interior View of 400 and 500 Series****Fig. 8534A****Sections of 400 and 500 Series****Intermediate Section****Fig. 8534B****Next to Last Section****Fig. 8534C****Back Section****Fig. 8534D**

IMICO SECTIONAL BOILERS

Front View of Sections, 600 and 700 Series

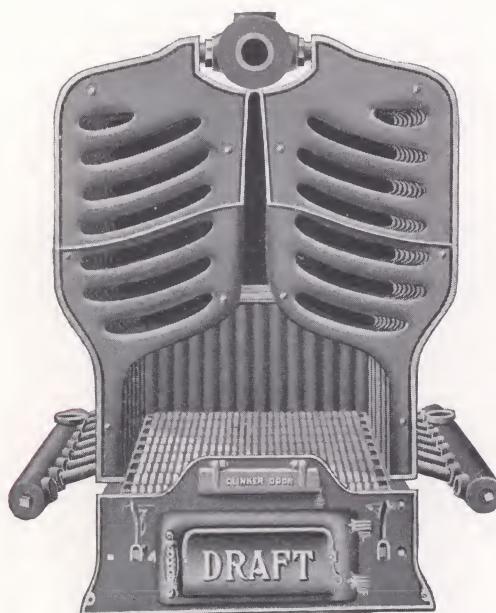


Fig. 8530A

Sections of 600 and 700 Series

Inside View
Front Section



Fig. 8530B

Intermediate
Section



Fig. 8530C

Next to Last
Section

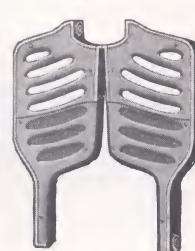


Fig. 8530D

Back Section

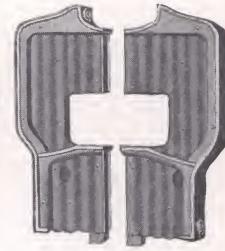


Fig. 8530E

IMICO SECTIONAL STEAM BOILERS

View of Rear of Back Section, Showing Drain
and Equalizer Pipes

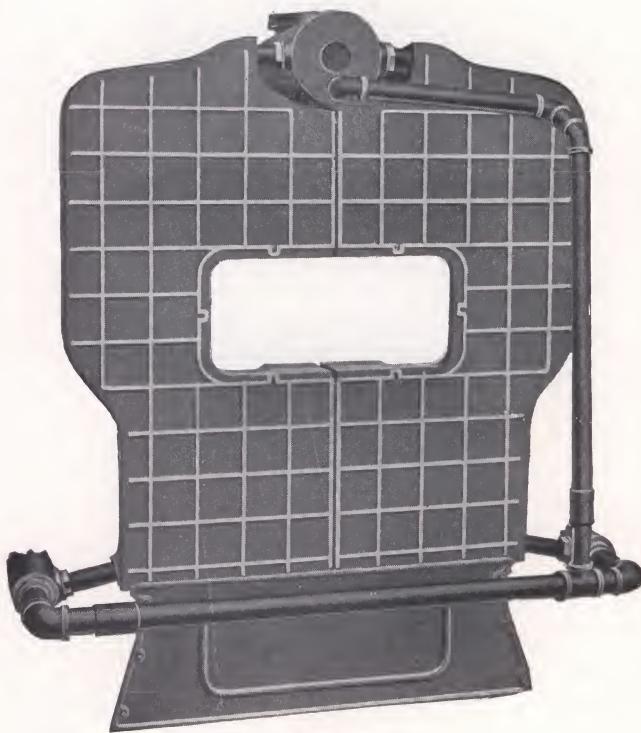


Fig. 8536A

IMICO SECTIONAL BOILERS

Grate Closed, in Actual Use



Fig. 8531A

Grate Open in Act of Shaking



Fig. 8531B

Smoke Pipe Outlet and Check Damper



Fig. 8531C

IMICO SECTIONAL BOILERS

REPAIR PARTS

400 AND 500 SERIES

Description	Price Each
Front Section.....	75.00
Intermediate Section.....	81.00
Back Section.....	95.00
Fire Door.....	2.50
" " Lining.....	1.50
Flue ".....	4.75
" " Lining.....	4.35
Clinker Door.....	1.10
Fire Door Slide.....	.45
Ash Pit Door only.....	3.65
Draft Door.....	2.60
Ash Pit Door Complete.....	6.25
Front Plate for Ash Pit.....	8.75
Rear " " " Complete.....	11.00
Door for Rear Ash Pit.....	3.65
Side Plate for " " 24-inch...	6.50
" " " " 12 "....	3.30
" " " " 6 "....	2.15
Grate Bars.....	6.50
Smoke Box Complete.....	10.00
Shaker Bar.....	1.00

600 AND 700 SERIES

Description	Price Each
Half Front Section.....	66.00
" " Intermediate Section.....	65.00
" " Bridge Section.....	80.00
" " Back Section.....	75.00
Fire Door Frame.....	3.50
" ".....	5.15
" " Lining.....	3.25
Flue ".....	10.50
" " Lining.....	7.00
Clinker Door.....	1.20
Fire Door Slide.....	.40
Ash Pit Door only.....	4.50
Draft Door.....	2.25
Ash Pit Door Complete.....	6.75
Front Plate for Ash Pit.....	9.75
Rear " " " Complete.....	12.75
Door for Rear Ash Pit.....	4.25
Side Plates for " " 24-inch...	6.50
" " " " 12 "....	3.30
" " " " 6 "....	2.15
Grate Bars.....	10.00
Smoke Outlet Complete.....	22.00
Shaker Bar.....	1.50

HEADERS FOR IMICO SECTIONAL BOILERS

Number of Water Boiler.....	395	400	405	410	415	420	600
" " Steam ".....	495	500	505	510	515	520	700
Price, Flow Header.....each	17.00	19.00	22.00	26.00	28.00	30.50	39.00
" " Return "....."	9.50	11.50	13.50	16.50	18.50	21.00	14.50
Number of Water Boiler.....	605	610	615	620	625	630	635
" " Steam ".....	705	710	715	720	725	730	735
Price, Flow Header.....each	41.00	42.50	51.00	58.00	60.00	66.00	72.00
" " Return "....."	17.00	18.50	21.00	25.00	29.00	33.00	37.00

Extra heavy nipples for above: 1½-inch, 60 cents; 2-inch, 70 cents.

IMICO ILLINOIS WATER AND STEAM BOILERS**FOR HARD OR SOFT COAL**

The Imico Illinois is an improvement on the original Imico Diamond—retaining the corrugated sections and fire pot, but having larger flues.

The sections are diamond corrugated, exposing a much larger amount of surface to action of fire than is possible with plain sections; these sections are connected one to another with large slip nipples.

The fire pot in the Imico Illinois is large and deep, with diamond corrugations on sides and with extended crown sheet (note details on illustration)—intended to absorb all the heat possible; the diamond corrugations in fire pot admit a free circulation of air against water space, thus maintaining a bright, active fire with no dead edges as in ordinary fire pots.

The draft door is located on side of boiler, so that chains from damper regulator do not interfere with ash pit door.

Ash pit is large and very deep.

The Imico Illinois Boiler is fitted with a rocking grate, all working parts, except the grate bars, being made of malleable iron.

IMICO ILLINOIS WATER BOILERS



Fig. 8540A

Number	Diameter of Base Inches	Diameter Inches	Diameter of Fire Pot Inches	Diameter of Grate Inches	Diameter of Smoke Pipe Inches	Height Inches	Tapped for Flow and Return Inches	Direct Radiation Square Feet	Price Each
481	29	22 $\frac{3}{4}$	18 $\frac{1}{2}$	19	8	50 $\frac{1}{2}$	2-2 $\frac{1}{2}$	790	163.00
581	29	22 $\frac{3}{4}$	18 $\frac{1}{2}$	19	8	56	2-2 $\frac{1}{2}$	825	178.50
402	31	24 $\frac{3}{4}$	20 $\frac{1}{2}$	21	8	52 $\frac{1}{2}$	2-3	965	188.00
502	31	24 $\frac{3}{4}$	20 $\frac{1}{2}$	21	8	58	2-3	1090	200.00
422	33	26 $\frac{3}{4}$	22 $\frac{1}{2}$	23	9	56	2-3 $\frac{1}{2}$	1150	226.00
522	33	26 $\frac{3}{4}$	22 $\frac{1}{2}$	23	9	62	2-3 $\frac{1}{2}$	1275	245.50
442	36	28 $\frac{3}{4}$	24 $\frac{1}{2}$	25	10	58	2-4	1425	272.50
542	36	28 $\frac{3}{4}$	24 $\frac{1}{2}$	25	10	64	2-4	1560	290.00

Prices include necessary fire tools.

Ratings are gross, and it is understood that all piping, mains and risers shall be figured as radiating surface.

The ratings on the Imico Water Boilers are based on the assumption that the mean temperature of the water at the boiler be 180° Fahr.

Buehler C400

IMICO ILLINOIS STEAM BOILERS



Fig. 8543A

Number	Diameter of Base Inches	Diameter of Boiler Inches	Diameter of Fire Pot Inches	Diameter of Grate Inches	Diameter of Smoke Pipe Inches	Height Inches	Tapped for Flow and Return Inches	Direct Radiation Square Feet	Price Each
2481	29	22 $\frac{3}{4}$	18 $\frac{1}{2}$	19	8	56 $\frac{1}{2}$	2-2 $\frac{1}{2}$	480	195.00
2581	29	22 $\frac{3}{4}$	18 $\frac{1}{2}$	19	8	61 $\frac{1}{2}$	2-2 $\frac{1}{2}$	535	206.00
2402	31	24 $\frac{3}{4}$	20 $\frac{1}{2}$	21	8	58	2-3	585	227.00
2502	31	24 $\frac{3}{4}$	20 $\frac{1}{2}$	21	8	63 $\frac{1}{2}$	2-3	660	252.00
2422	33	26 $\frac{3}{4}$	22 $\frac{1}{2}$	23	9	61 $\frac{1}{2}$	2-3 $\frac{1}{2}$	700	260.00
2522	33	26 $\frac{3}{4}$	22 $\frac{1}{2}$	23	9	67 $\frac{1}{2}$	2-3 $\frac{1}{2}$	775	283.00
2442	36	28 $\frac{3}{4}$	24 $\frac{1}{2}$	25	10	63 $\frac{1}{2}$	2-4	865	305.00
2542	36	28 $\frac{3}{4}$	24 $\frac{1}{2}$	25	10	69 $\frac{1}{2}$	2-4	950	325.00

Prices include necessary trimming and fire tools.

Ratings are gross, and it is understood that all piping, mains and risers shall be figured as radiating surface.

The ratings on Imico Steam Boilers are based on the assumption that an average pressure of 2 pounds be maintained at the boiler.

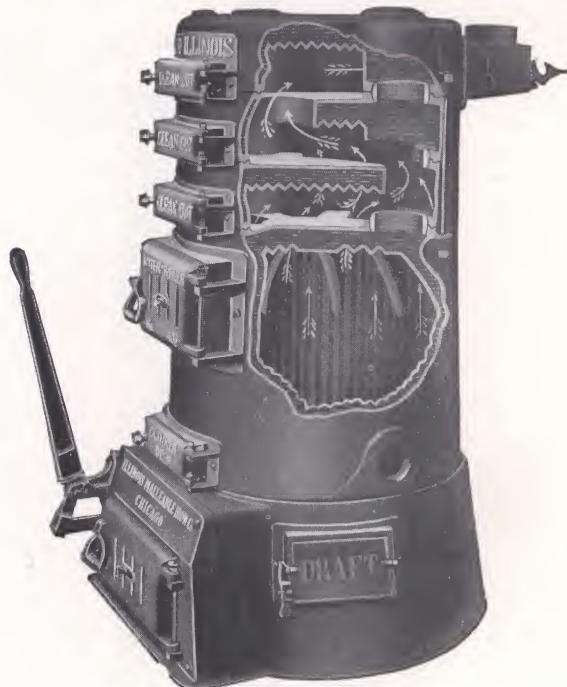
IMICO ILLINOIS BOILERS**Sectional View of Imico Illinois Boiler, Showing Diamond Corrugations**

Fig. 8544A

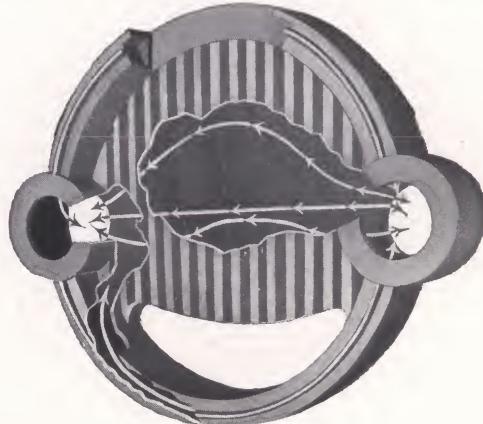
Sectional View of Section of Imico Illinois Boiler, Showing Diamond Corrugations and Water Circulation

Fig. 8544B

IMICO ILLINOIS BOILERS

Inside View of Fire Pot of Imico Illinois Boilers
Showing Diamond Corrugations Along Sides of Fire Pot and
Extended Construction of Crown Sheet



Fig. 8545A

View of Grate of Imico Illinois Boilers



Fig. 8545B

IMICO ILLINOIS ROUND BOILERS

REPAIR PARTS

Trade Number of Boiler	Water Steam	481-581 2481-2581	402-502 2402-2502	422-522 2422-2522	442-542 2442-2542
Nominal Diameter of Grate.....	inches	19	21	23	25
Price, No. 1, Base.....	each	22.00	26.50	30.00	45.00
" " 2, Shaker Bracket.....	"	.70	.70	.70	.70
" " 3, Rear Grate Bar.....	"	2.75	3.00	3.25	4.00
" " 4, Front " "	"	2.75	3.00	3.25	4.00
" " 5, Center " "	"	3.75	4.00	4.50	5.25
" " 6, Ash Pit Door Frame.....	"	4.00	4.00	4.75	5.75
" " 7, Ash Pit Door.....	"	1.50	2.00	2.50	2.70
" " 8, Clinker Door.....	"	.60	.60	.70	.70
" " 9, Draft Door Frame.....	"	1.00	1.00	1.40	1.40
" " 10, " "	"	.60	.65	.70	.70
" " 11, Shaker Hole Cover.....	"	.15	.15	.15	.15
" " 12, Fire Pot Section.....	"	85.00	96.00	107.00	122.00
" " 13, Fire Door.....	"	1.40	1.40	1.60	1.75
" " 14, Ash Door Slide.....	"	.40	.40	.40	.40
" " 14A, Fire Door Slide.....	"	.40	.40	.40	.40
" " 15, " " Lining.....	"	.70	.70	.80	.90
" " 16, " " Frame.....	"	2.00	2.25	3.00	3.50
" " 17, Ratchet Catch.....	"	.30	.30	.30	.30
" " 18, Intermediate Section.....	"	26.00	32.00	38.00	42.00
" " 19, " " "	"	26.00	32.00	38.00	42.00
" " 20, Intermediate Cleanout Door Frame ..	"	.70	.80	.80	.90
" " 21, " " " "	"	.70	.70	.80	.80
" " 22, Top Cleanout Door Frame.....	"	.90	1.00	1.00	1.00
" " 23, Top Section Water.....	"	32.00	35.50	42.00	50.00
" " 24, " " Steam.....	"	48.00	66.00	70.00	80.00
" " 25, Smoke Outlet.....	"	3.25	3.75	5.00	5.00
" " 26, Pipe Damper Stem.....	"	.40	.40	.40	.40
" " 27, Check Damper.....	"	.50	.60	.60	.60
" " 28, Pipe Damper.....	"	.50	.60	.60	.60
" " 29, Shaker Lever.....	"	1.10	1.10	1.10	1.10
" " 30, Coil Opening Clamp.....	"	.30	.30	.30	.30
" " 31, " " Cover.....	"	.30	.30	.30	.30
" " 32, Grate Connecting Bar.....	"	.60	.70	.70	.80
" " 33, " " Shaker Toggle.....	"	.75	.75	.75	.75
" " 34, Shaker Bar.....	"	.70	.70	.80	.80
" " 35, Clinker Door Frame.....	"	.75	.85	1.00	1.00
" " 36, " " Liner.....	"	.60	.80	.80	.80
" " 37, Slip Connection Nipples.....	"	.90	.90	.90	.90

IMICO GARBAGE BURNER AND WATER HEATERS

No. 72, Front View



Fig. 8551A

No. 71, Internal View

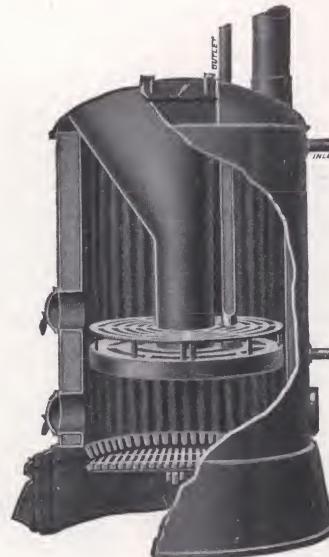


Fig. 8551B

The No. 72 size is suitable for residences and small apartment houses, say not exceeding six suites. The No. 71 has been successfully used in buildings containing twelve apartments.

Number.....	71	72
Height Over All..... inches	46	46
" of Water Cylinder..... "	28	28
Diameter of Cylinder..... "	31½	24
" " Base..... "	35	28½
" " Grate..... "	27	17
Smoke Outlet..... "	10x5	7x4¾
Iron Pipe Connections..... "	2½	2
Heating Capacity, per Hour..... gallons	750	325
Price..... each	230.00	165.00

ILLINOIS HOT WATER HEATERS

MAGAZINE FEED—FOR HARD COAL

Front View, No. 6-7

Front View, No. 5



Fig. 8548A



Fig. 8548B

Sectional View, No. 15

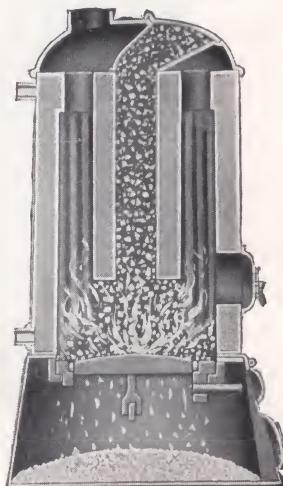


Fig. 8543C

No.	Height Inches	Outside Diam. of Boiler In.	Inside Diam. of Magazine In.	Diam. of Base In.	Diam. of Grate In.	Diam. Smoke Pipe In.	Iron Pipe Cons. In.	Heating Capacity per Hour Gallons	Price Each
5	37	13	5	18½	10	5	1¼	100	37.00
6	43	15¾	6	21	12	6	1½	180	65.00
7	49	18½	7½	23½	15	6	2	300	89.00
15	45½	19½	6	24	16	6	1½	400	139.00

Capacity named above is based on the assumption that sufficient storage tank capacity is provided for heater.

NOTE.—The magazines in Nos. 5, 6 and 7 are plain, without water chamber—the No. 15 being the only one made with water chamber.

BOILERS AND HEATERS

No. 112 Aetna Hot Water Boiler
For Hard and Soft Coal



Fig. 8550A

Imico Laundry Water Heaters
No. 152, Two Holes
No. 154, Four Holes



Fig. 8550B

**AETNA HOT WATER BOILERS
WITH LENGTHENED WATER CYLINDER**

	112	116	120
Number.....			
Height..... inches	35	38½	40
Diameter of Heater..... "	16	19	24
" " Grate..... "	12	16	20
Smoke Pipe..... "	5	6	6
Iron Pipe Connections.....	1¼	1½	2
Capacity, Direct Radiation..... square feet	115	200	300
Heating Capacity, per Hour..... gallons	150	260	400
Price..... each	45.00	72.00	100.00

Capacities named above are based on assumption that sufficient storage tank capacity is provided for heater.

IMICO LAUNDRY WATER HEATERS

The Imico Hot Water Heaters are durably constructed with heavy draw center shaking grates. The large exposure of heating surface to the direct action of the fire makes the Imico a very rapid heater and is extremely economical in the consumption of fuel.

	152	154
Number.....		
Height..... inches	23½	23½
Size of Top.....	13½x21½	19¾x21½
Outside Diameter of Fire Pot Section..... "	14	14
Inside " " " "	11	11
Height of Fire Pot Section..... "	7	7
Diameter of Grate..... "	10	10
Smoke Pipe..... "	6	6
Iron Pipe Connections.....	1	1
Heating Capacity, per Hour..... gallons	30-100	30-100
Price..... each	19.00	22.50

M HYDRANTS AND STREET WASHERS

ANTI-FREEZING

COMPRESSION HYDRANT



Fig. 5265A

SELF-CLOSING HYDRANT



Fig. 5265B

STREET WASHER

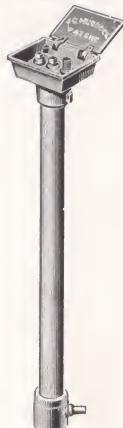


Fig. 5265C

COMPRESSION HYDRANTS

To set in Ground	feet	2	3	4	5	6
Price, $\frac{3}{4}$ -inch.....	each	9.00	10.00	11.00	12.00	13.00
" 1 "	"	11.50	12.50	13.50	14.50	15.50

SELF-CLOSING HYDRANTS

To set in Ground	feet	2	3	4	5	6
Price, $\frac{3}{4}$ -inch.....	each	11.00	12.00	13.00	14.00	15.00

STREET WASHERS

To set in Ground	feet	2	3	4	5	6
Price, $\frac{3}{4}$ -inch.....	each	8.00	8.50	9.50	10.50	11.50
" 1 "	"	9.00	10.00	11.00	12.00	13.00

In ordering, be careful to give length and whether wanted for lead or iron pipe.

M HYDRANT AND STREET WASHER REPAIRS

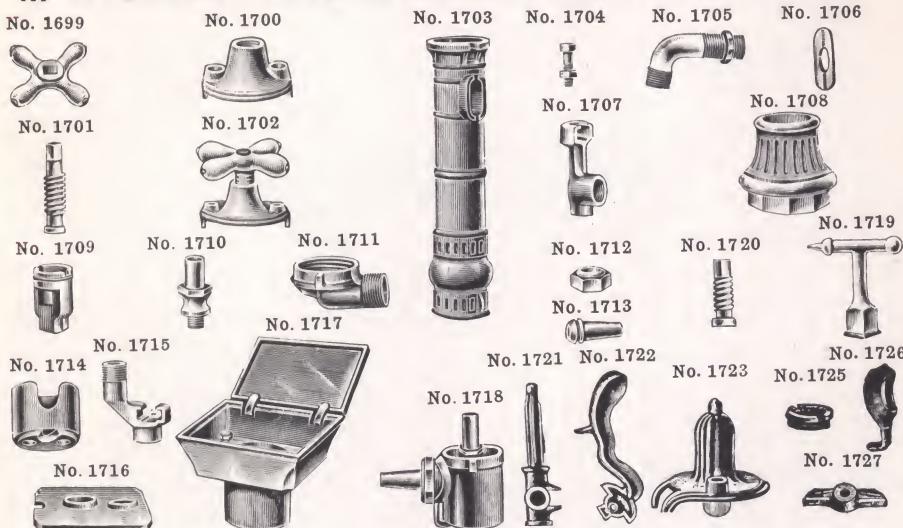


Fig. 5287A

No.	Name of Part	$\frac{3}{4}$ -in.	1-in.
1699	Hydrant Handles.....	.12	.15
1700	" Top .....	.25	.30
1701	" Screw.....	.40	.40
1702	" Top, Complete .....	.75	.85
1703	" Stock for Compression .....	.60	1.00
1703A	" " " Self-closing	1.00	.....
1704	" Bolt and Nut.....	.10	.10
1705	" Nozzle and Locknut.....	.30	.50
1706	" " " Slide.....	.05	.05
1707	" Stirrup and Tee.....	.25	.50
1708	" Base.....	.25	.25
1709	Valve Body for Hydrant or Street Washer.....	.75	.90
1710	" " " " " " .....	.40	.50
1711	Bottom Connection for Hydrant or Street Washer.....	.30	.40
1712	Tail Nut for Hydrant or Street Washer .....	.10	.12
1713	" Coupling for Hydrant or Street Washer.....	.40	.50
1714	Shoe for Hydrant or Street Washer.....	.10	.10
1715	Street Washer Stirrup.....	.50	.70
1716	" " " Plate.....	.25	.30
1717-1	" " " Lid only.....	.25	.30
1717-2	" " " Top .....	.50	.75
1718	Bottom Complete for Hydrant or Street Washer.....	1.35	1.70
1719	Street Washer Keys.....	.50	1.50
1720	" " " Screws.....	.30	.30
1721	Stirrup and Tee for Self-closing Hydrant .....	.60	.....
1722	Lever for Self-closing Hydrant.....	.50	.....
1723	Top " " " " .....	.50	.....
1724	Spring " " " " (not illustrated) .....	.50	.....
1725	Packing Nut for Hydrant or Street Washer .....	.15	.15
1726	Clamp " " " " .....	.15	.15
1727	Angle Plate for Street Washer.....	.10	.10
....	Valve Packing, consisting of Cup Leather, Washer and Seat Leather	per doz. sets	1.50 2.00

MACHINE BOLTS

SQUARE HEADS, SQUARE NUTS AND FINISHED POINTS



Fig. 33550A

PRICE, PER HUNDRED—MANUFACTURERS' STANDARD LIST
Revised Sept. 1, 1923

Length Inches	DIAMETER INCHES											
	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ and $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	
1 $\frac{1}{2}$	1.70	2.00	2.40	3.00	3.70	5.50	7.70	10.50	15.10	22.50	30.00	
2	1.80	2.15	2.60	3.25	4.00	5.90	8.25	11.20	16.00	23.70	31.50	
2 $\frac{1}{2}$	1.90	2.30	2.80	3.50	4.30	6.30	8.80	11.90	16.90	24.90	33.00	
3	2.00	2.45	3.00	3.75	4.60	6.70	9.35	12.60	17.80	26.10	34.50	
3 $\frac{1}{2}$	2.10	2.60	3.20	4.00	4.90	7.10	9.90	13.30	18.70	27.30	36.00	
4	2.20	2.75	3.40	4.25	5.20	7.50	10.45	14.00	19.60	28.50	37.50	
4 $\frac{1}{2}$	2.30	2.90	3.60	4.50	5.50	7.90	11.00	14.70	20.50	29.70	39.00	
5	2.40	3.05	3.80	4.75	5.80	8.30	11.55	15.40	21.40	30.90	40.50	
5 $\frac{1}{2}$	2.50	3.20	4.00	5.00	6.10	8.70	12.10	16.10	22.30	32.10	42.00	
6	2.60	3.35	4.20	5.25	6.40	9.10	12.65	16.80	23.20	33.30	43.50	
6 $\frac{1}{2}$	3.70	4.50	5.40	6.50	7.70	9.50	13.20	17.50	24.10	34.50	45.00	
7	3.80	4.65	5.60	6.75	8.00	9.90	13.75	18.20	25.00	35.70	46.50	
7 $\frac{1}{2}$	3.90	4.80	5.80	7.00	8.30	10.30	14.30	18.90	25.90	36.90	48.00	
8	4.00	4.95	6.00	7.25	8.60	10.70	14.85	19.60	26.80	38.10	49.50	
9	4.20	5.25	6.40	7.75	9.20	11.50	15.95	21.00	28.60	40.50	52.50	
10	4.40	5.55	6.80	8.25	9.80	12.30	17.05	22.40	30.40	42.90	55.50	
11	4.60	5.85	7.20	8.75	10.40	13.10	18.15	23.80	32.20	45.30	58.50	
12	4.80	6.15	7.60	9.25	11.00	13.90	19.25	25.20	34.00	47.70	61.50	
13	.....	8.00	9.75	11.60	14.70	20.35	26.60	35.80	50.10	64.50	
14	.....	8.40	10.25	12.20	15.50	21.45	28.00	37.60	52.50	67.50	
15	.....	8.80	10.75	12.80	16.30	22.55	29.40	39.40	54.90	70.50	
16	.....	9.20	11.25	13.40	17.10	23.65	30.80	41.20	57.30	73.50	
17	.....	9.60	11.75	14.00	17.90	24.75	32.20	43.00	59.70	76.50	
18	.....	10.00	12.25	14.60	18.70	25.85	33.60	44.80	62.10	79.50	
19	.....	10.40	12.75	15.20	19.50	26.95	35.00	46.60	64.50	82.50	
20	.....	10.80	13.25	15.80	20.30	28.05	36.40	48.40	66.90	85.50	
21	.....	.....	.....	16.40	21.10	29.15	37.80	50.20	69.30	88.50	
22	.....	.....	.....	17.00	21.90	30.25	39.20	52.00	71.70	91.50	
23	.....	.....	.....	17.60	22.70	31.35	40.60	53.80	74.10	94.50	
24	.....	.....	.....	18.20	23.50	32.45	42.00	55.60	76.50	97.50	
25	.....	.....	.....	18.80	24.30	33.55	43.40	57.40	78.90	100.50	
26	.....	.....	.....	.....	.....	34.65	44.80	59.20	81.30	103.50	
27	.....	.....	.....	.....	.....	35.75	46.20	61.00	83.70	106.50	
28	.....	.....	.....	.....	.....	36.85	47.60	62.80	86.10	109.50	
29	.....	.....	.....	.....	.....	37.95	49.00	64.60	88.50	112.50	
30	.....	.....	.....	.....	.....	39.05	50.40	66.40	90.90	115.50	

The following extras are to be understood as a part of this list:

Bolts with hexagon heads or hexagon nuts, 10 per cent extra. If both hexagon heads and hexagon nuts, 20 per cent extra. Joint bolts with oblong nuts, 10 per cent extra. Bolts with tee heads, askew heads and eccentric heads, 20 per cent extra. Key bolts, 20 per cent extra. Bolts with cotter holes, 25 per cent extra.

Machine bolts, when fitted with U. S. standard square nuts, add 5 per cent.

Machine bolts, when fitted with U. S. standard hexagon nuts, add 15 per cent.

STANDARD SCREWED FITTINGS

GENERAL DIMENSIONS

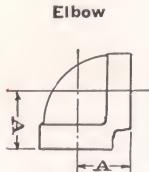


Fig. 8745A

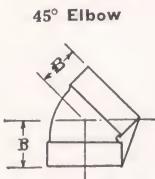


Fig. 8745B

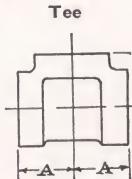


Fig. 8745C

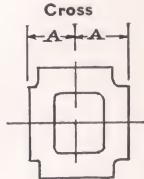


Fig. 8745D

CAST IRON

Size Inches	DIMENSIONS, INCHES		Size Inches	DIMENSIONS, INCHES	
	A	B		A	B
1/4	13/16	3/4	3 1/2	3 5/16	2 3/8
3/8	15/16	13/16	4	3 3/4	2 5/8
1/2	1 1/8	7/8	4 1/2	4 1/16	2 13/16
5/8	1 5/16	1	5	4 3/8	3
1	1 1/2	1 1/8	6	5	3 1/2
1 1/4	1 3/4	1 1/4	7	5 13/16	0
1 1/2	1 7/8	1 7/16	8	6 1/2	0
2	2 3/16	1 11/16	10	7 7/8	0
2 1/2	2 9/16	1 15/16	12	9 1/4	0
3	3 1/8	2 3/16	....	...	...

MALLEABLE IRON

Size Inches	DIMENSIONS, INCHES		Size Inches	DIMENSIONS, INCHES	
	A	B		A	B
1/8	11/16	..	3	3 1/8	2 3/16
1/4	13/16	3/4	3 1/2	3 7/16	2 3/8
3/8	15/16	13/16	4	3 3/4	2 5/8
1/2	1 1/8	7/8	4 1/2	4 1/16	2 13/16
5/8	1 5/16	1	5	4 1/2	3
1	1 1/2	1 1/8	6	5 1/8	3 1/2
1 1/4	1 3/4	1 1/4	7	0	0
1 1/2	1 15/16	1 7/16	8	0	0
2	2 1/4	1 11/16	10	0	0
2 1/2	2 11/16	1 15/16	12	0	0

The above dimensions are subject to a slight variation and change without notice.

LENGTH OF THREAD ON PIPE

That is Screwed into Valves or Fittings to Make a Tight Joint

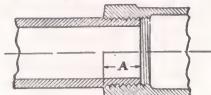


Fig. 8745E

Size Inches	Dimensions Inches, A	Size Inches	Dimensions Inches, A	Size Inches	Dimensions Inches, A
1/8	1/4	1 1/2	5/8	5	1 3/16
1/4	3/8	2	11/16	6	1 1/4
3/8	3/8	2 1/2	15/16	7	1 1/4
1/2	1/2	3	1	8	1 5/16
5/8	1/2	3 1/2	1 1/16	9	1 3/8
1	9/16	4	1 1/16	10	1 1/2
1 1/4	5/8	4 1/2	1 1/8	12	1 5/8

Dimensions given do not allow for variation in tapping and threading.

STANDARD STEAM, GAS AND WATER PIPE
BLACK AND GALVANIZED



Fig. 6953A

As Adopted January 1, 1913

All Weights and Dimensions are Nominal

Size Inches	Price per Foot	DIAMETER INCHES		Thickness Inches	WEIGHT, PER FOOT POUNDS		Number of Threads per Inch
		External	Internal		Plain Ends	Threaded and Coupled	
$\frac{1}{8}$	.05 $\frac{1}{2}$	.405	.269	.068	.244	.245	27
$\frac{1}{4}$	.06	.540	.364	.088	.424	.425	18
$\frac{3}{8}$	.06	.675	.493	.091	.567	.568	18
$\frac{5}{8}$	.08 $\frac{1}{2}$	.840	.622	.109	.850	.852	14
$\frac{3}{4}$	.11 $\frac{1}{2}$	1.050	.824	.113	1.130	1.134	14
1	.17	1.315	1.049	.133	1.678	1.684	11 $\frac{1}{2}$
$1\frac{1}{4}$	.23	1.660	1.380	.140	2.272	2.281	11 $\frac{1}{2}$
$1\frac{1}{2}$	.27 $\frac{1}{2}$	1.900	1.610	.145	2.717	2.731	11 $\frac{1}{2}$
2	.37	2.375	2.067	.154	3.652	3.678	11 $\frac{1}{2}$
$2\frac{1}{2}$	.58 $\frac{1}{2}$	2.875	2.469	.203	5.793	5.819	8
3	.76 $\frac{1}{2}$	3.500	3.068	.216	7.575	7.616	8
$3\frac{1}{2}$	.92	4.	3.548	.226	9.109	9.202	8
4	1.09	4.500	4.026	.237	10.790	10.889	8
$4\frac{1}{2}$	1.27	5.	4.506	.247	12.538	12.642	8
5	1.48	5.563	5.047	.258	14.617	14.810	8
6	1.92	6.625	6.065	.280	18.974	19.185	8
7	2.38	7.625	7.023	.301	23.544	23.769	8
8	2.88	8.625	7.981	.322	28.554	28.809	8
9	3.45	9.625	8.941	.342	33.907	34.188	8
10	4.12	10.750	10.020	.365	40.483	41.132	8
11	4.63	11.750	11.	.375	45.557	46.247	8
12	5.07	12.750	12.	.375	49.562	50.706	8

The permissible variation in weight is 5 per cent above and 5 per cent below.

Furnished with threads and couplings and in random lengths, unless otherwise ordered.

For cut lengths, an extra charge will be made above random lengths.

For pipe smoothed on the inside, known as reamed and drifted, an extra charge will be made above standard pipe.

For galvanized or coated pipe, an extra charge will be made above black.

STEAM, GAS AND WATER PIPE

BLACK AND GALVANIZED

ADOPTED JANUARY 1, 1919
ALL WEIGHTS AND DIMENSIONS ARE NOMINAL

EXTRA STRONG

Size Inches	DIAMETER External Inches	Internal Inches	Thickness Inches	Weight per Foot Plain Ends Pounds	Price per Foot
$\frac{1}{8}$	.405	.215	.095	.314	.12
$\frac{1}{4}$	.540	.302	.119	.535	.071 $\frac{1}{2}$
$\frac{3}{8}$	.675	.423	.126	.738	.071 $\frac{1}{2}$
$\frac{1}{2}$	.840	.546	.147	1.087	.11
$\frac{3}{4}$	1.050	.742	.154	1.473	.15
1	1.315	.957	.179	2.171	.22
$1\frac{1}{4}$	1.660	1.278	.191	2.996	.30
$1\frac{1}{2}$	1.900	1.500	.200	3.631	.361 $\frac{1}{2}$
2	2.375	1.939	.218	5.022	.501 $\frac{1}{2}$
$2\frac{1}{2}$	2.875	2.323	.276	7.661	.77
3	3.500	2.900	.300	10.252	1.03
$3\frac{1}{2}$	4.	3.364	.318	12.505	1.25
4	4.500	3.826	.337	14.983	1.50
$4\frac{1}{2}$	5.	4.290	.355	17.611	1.80
5	5.563	4.813	.375	20.778	2.08
6	6.625	5.761	.432	28.573	2.86
7	7.625	6.625	.500	38.048	3.81
8	8.625	7.625	.500	43.388	4.34
9	9.625	8.625	.500	48.728	4.90
10	10.750	9.750	.500	54.735	5.48
11	11.750	10.750	.500	60.075	6.10
12	12.750	11.750	.500	65.415	6.55

The permissible variation in weight is 5 per cent above and 5 per cent below.

DOUBLE EXTRA STRONG

Size Inches	DIAMETER, INCHES External	Internal Inches	Thickness Inches	Weight per Foot Plain Ends Pounds	Price per Foot
$\frac{1}{2}$	.840	.252	.294	1.714	.32
$\frac{3}{4}$	1.050	.434	.308	2.440	.35
1	1.315	.599	.358	3.659	.37
$1\frac{1}{4}$	1.660	.896	.382	5.214	.521 $\frac{1}{2}$
$1\frac{1}{2}$	1.900	1.100	.400	6.408	.65
2	2.375	1.503	.436	9.029	.91
$2\frac{1}{2}$	2.875	1.771	.552	13.695	1.37
3	3.500	2.300	.600	18.583	1.86
$3\frac{1}{2}$	4.	2.728	.636	22.850	2.30
4	4.500	3.152	.674	27.541	2.76
$4\frac{1}{2}$	5.	3.580	.710	32.530	3.26
5	5.563	4.063	.750	38.552	3.86
6	6.625	4.897	.864	53.160	5.32
7	7.625	5.875	.875	63.079	6.35
8	8.625	6.875	.875	72.424	7.25

The permissible variation in weight is 10 per cent above and 10 per cent below.
The following notes apply to both tables:

Furnished with plain ends and in random lengths, unless otherwise ordered.

Random length of extra strong and double extra strong pipe is considered to be 12 feet to 22 feet, we to have the privilege, however, of supplying not exceeding 5 per cent of total order in lengths from 6 to 12 feet.

For pipe fitted with threads and couplings; for cut lengths, or galvanized or ~~coated~~ pipe, an extra charge will be made.

Trade Mark Registered



U.S. Patent Office 1912

